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INSANITY, AND ITS RELATIONS TO MEDICINE.*

GENTLEMEN OF THE SOCIETY, LADIES AND GENTLEMEN:

It will be generally admitted, that in the science of medicine, as in other sciences, no one of its various branches can be successfully cultivated without paying due regard to the connection between that branch and the whole body of knowledge to which it belongs.

The object of this address is to show the application of this truth to the case of psychological medicine, in which such application has hitherto been too imperfectly perceived and acted upon; to show that the treatment and care of the insane should be recognized as constituting a department inseparable from general medical science; its study and development governed by the same rules, and its progress made dependent upon the same causes, that advance or retard the progress of all medical knowledge. If this be true, it will appear, not only that a thorough acquaintance with this subject must be founded upon a comprehensive knowledge of the general science, but that, without such acquaintance,

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the study of the general science itself becomes defective, and that it should therefore form a part of the general course in all medical training, and be accorded a place in the schools where elementary principles are taught.

It was for a long time supposed that the treatment of the so-called diseases of the mind was quite a different thing from the treatment of diseases of the body; and this idea has not yet wholly disappeared. It will be my first object, in order to establish the connection between psychological and general medicine, briefly to touch upon some of the facts which tend to prove this supposition an erroneous one, and insanity to be subject to the same laws, and to present the same general pathological conditions, which are found in other diseases.

And first, a reference to the history of this branch of medical knowledge, will show that progress in it has been either rapid or retarded, in direct proportion as the method of studying it has been similar to that pursued in regard to disorders deemed purely physical, or has been founded upon the notion that it was a department of metaphysics rather than of medicine, and so made a subject of metaphysical speculation, instead of a subject of observation and experiment. There is evidence in the writings of the ancients, both of their philosophers and their medical men, to show that they entertained many clear ideas in relation to the physical causation of insanity; and as a consequence, it is safe to aver that, in recognition of the psychical phenomena of the disease, and in the moral treatment to be applied, we have at this day made no astonishing advance from the age of Pythagoras. The Fathers of Medicine did not regard insanity as a special department, but it was studied, investigated, and treated by them in the same way as other diseases. When Hippocrates was called to treat the King of Macedonia for disease of the lungs,

his diagnosis revealed insanity, of which he cured his patient. His fame indeed rested partly on his skill in this direction; and owing to this, he was called to treat the philosopher Democritus, whom he found engaged in dissecting various animals, in order to discover the cause of his malady. "Hippocrates," says Burton, "relates (the story) at large, in his epistle to Damegitus, wherein he doth express, how coming to visit him one day, he found Democritus in his garden at Abdera, in the suburbs, under a shady bower, with a book on his knees, busy at his study, sometimes writing, sometimes walking. The subject of his book was Melancholy and Madness. About him lay the carcasses of several beasts newly by him cut up and anatomized; not that he did contemn God's creatures, as he told Hippocrates, but to find out the seat of this *atra-bilis*, or melancholy; whence it proceeds, and how it is engendered in men's bodies, to the intent that he might better cure it in himself, and by his writings and observations teach others how to prevent and avoid it, which good intent of his, Hippocrates highly commended." Medicine and philosophy were then dissevered. Hippocrates was a physician, and Democritus a philosopher.

Among the Egyptians, we are informed, there were retreats for the insane, where wine, music, cheerful amusements and repose were the gentle and effective agencies brought to bear upon the disordered intellect, and modern skill has discovered no better aids to a successful treatment of the disease.

During the middle ages, however, the knowledge of the causes and treatment of insanity was almost lost. It was a subject peculiarly exposed to perversion, from the general tendency of the intellectual activity of those times to abstruse and barren philosophical speculations upon everything connected with the mind, and its re-

lations to the body. Owing to this, as well as to other causes, psychology was the last branch of medical science to emerge from darkness after the revival of learning, and it has remained more or less clogged with the fetters of metaphysical theories even to the present day.

It would indeed be interesting to inquire into the various theories of insanity; but it is not practically important or profitable to do so in an address intended only to direct inquiry, awaken interest, and suggest practical hints. Still it may be proper to say in support of what I have stated, that strange as it may now appear, the almost universal belief, until a comparatively recent period, has been, that the mind itself was diseased —notwithstanding that such a dogma would imply its death, as what may be sick may also die. It is however due to medical science to say, that this has never been fully accepted by the majority of the leading minds of the profession. To show how this idea of disease of the soul or mind adhered to the science long after it was condemned by the developments and progress of pathological investigations, it is only necessary to refer to recent authorities. Dr. Bucknill, in a prize essay on Criminal Lunacy, in 1854, says that there are three theories, the psychic, somatic, and psycho-somatic.

With the impulse given to the study of mental philosophy by the writers of the eighteenth century, both in England and on the continent, no corresponding advance took place in the study of mental disorders.

The first step towards progress and improvement in this field of investigation, was not due therefore to mental philosophers, but to physicians and philanthropists. The labors of Pinel, and the results accomplished by him in ameliorating the condition of the insane, are known to all. It is not so generally known, however, that before the philanthropic efforts of Pinel were com-

menced, the subject had already received the attention of Benjamin Franklin, and other benevolent persons in this country. As early as 1750—forty-three years before the movement of Pinel—the Pennsylvania Hospital, at Philadelphia, was organized, and a department for the care and treatment of the insane established; in which the system afterwards advocated by Pinel, in France, was anticipated, and the barbarous method of treatment to which the insane were then exposed, was abandoned. In the preamble to an act of the Provincial Assembly, there are these noble words: "Whereas, there are frequently, in many parts of this province, poor distempered persons, who languish long in pain and misery, under various disorders of body and mind —and being scattered abroad in different and very distant habitations, cannot have the benefit of regular advice, attendance, lodging, diet and medicine, but at a great expense; and, therefore, often suffer for want thereof; which inconveniency might be happily removed by collecting the patients into one common Provincial Hospital, properly disposed and appointed, where they may be comfortably subsisted, and their health taken care of at a small charge, and by the blessing of God on the endeavors of skilful physicians and surgeons, their diseases may be cured and removed." Pursuing this preamble, an act was then passed founding a "hospital for the reception and relief of lunatics, and other distempered and sick poor," and providing for their reception, "without partiality or preference."

This system of moral treatment, the substitution of kindness for the lash, and of soothing influences, and comparative freedom from restraint, for confinement in narrow cells in filth and starvation, was the first great step towards a proper understanding of the method of curing insanity, although the theory of mental disorders

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was still imperfectly recognized. But the good effects of the improved methods were owing to the better hygienic and sanitary condition of the patients, and, if the full bearings of this fact as showing the intimate connection between general pathology and disorders of the mind were not recognized, observing men could scarcely fail in spite of false theories, from seeing the favorable results, upon the patients, of due attention to the physical aspects of this disease. It is also a fact which should be borne in mind in criticising the past, that without a rational theory, there could be no rational treatment; and that therapeutics could not have a principal place in the treatment, while the disease was unrecognized as a bodily affection, but considered as a spiritual disorder.

It will be remembered that at the period of which we speak, the latter half of the eighteenth century, the science of medicine was making rapid progress, and this period of its history is adorned by some of the most distinguished names both in this country and in Europe.

It may well be a matter of national congratulation that in this great reform America took the lead. All the known resources of benevolence and medical skill for the recovery of the unfortunate victims of insanity, were applied long before Pinel unchained the madmen in the Bicêtre. That great man accomplished vast results in France; but the records of sickening barbarities to which the insane were subjected in the hospital which was the scene of Pinel's reforms, in the heart of Paris, under the shadow of her schools of philosophy, and in the intellectual centre of Europe, is a striking illustration of the terrible distance to which psychological medicine was there left behind in the wake of the general advance of medical science. Simultaneously with the reforms of Pinel, the Retreat, at York, Eng-

land, was proposed by William Tuke, under the auspices of the Society of Friends. The reports issued from this hospital were the first of the kind published, and did much to show the curability of insanity under proper treatment, while they awakened an interest in the subject which finally attracted the attention of civil governments to the necessity of the sanative care of this unfortunate class of persons, and thus inaugurated the system of hospitals which now prevails so extensively over this country and in Europe. With the establishment of this system, the care of the insane was transferred solely to medical men; the patient was no longer under the charge of a keeper, but under the superintendence of a physician; and as a result, insanity soon came to be regarded as a curable disease, and the reports of modern hospitals slowly but steadily spread this important truth, which it is so difficult, yet so essential, to impress on the public mind. These reports have further presented facts and statistics, and the collected results of observations, tending to dissipate the old error of the psychic theory that the soul or mind can be diseased; and, in consequence, this branch of medicine is now nearly released from the trammels of metaphysical vagaries. Moral insanity is the last remnant of the metaphysical school. This dogma once out of the way, and insanity is fully in the region of practical investigation, and within the domain of medical science.

The historical facts thus briefly noted show the result they were cited to prove. First, that progress in the proper understanding and more accurate knowledge of insanity, has not been owing to the advance of mental philosophy; but that, on the other hand, just so far as the methods and theories of mental philosophy have been applied to insanity, and the methods and theories

of medical science have been neglected, just in the same ratio has progress in the knowledge and treatment of insanity been retarded. Secondly, the history of the investigation and study of mental diseases will, in support of the view that insanity is properly a branch of general medicine, disclose the fact that psychological medicine, whenever it has been free from the adverse metaphysical influences to which reference has been made, has kept pace with general medical science. The origin of the humane system of treatment for the insane, nay, the very existence of hospitals themselves, has often been attributed to the sole influence of religion. But making all allowance for the charitable impulses of religion, science alone can show how those impulses are to be carried out. Asylums have a history dating back three centuries; but what, we may ask, was their actual condition until a comparatively recent period, when medical science stepped in to enlighten religion itself, and to show what humanity really requires? Indeed we may say that to this day, in most cases in which this class of the afflicted have been left only to the chances of philanthropy and religious sympathy, and without reference to the system of hospital treatment provided by true science, their condition is actually little better than that of the same class was a thousand years ago. In the State of New York, and in other places, insane men and women are in chains and neglect, and this within the sound of church bells; and languish unvisited and unthought of by worshipping congregations, which annually raise thousands of dollars to transmit to remote nations to rescue and educate the heathen. It is hardly too much to say that this state of things will continue until medical men demonstrate the mode of relief, and declare its measure. Show civilized and religious communities *how* they shall arrest

all this wrong and remedy it, and it will soon be accomplished.

That progress in the knowledge of insanity has come from advance in medical science, will appear more clearly from the following facts among others:

First. A large number of those whose names are distinguished in the history of medicine, have embraced insanity in the scope of their investigations, and made it part of their study and practice.

Second. If the condition of cerebral pathology at any given period be examined and compared with the pathology and therapeutic treatment of insanity at the same time, the pathological knowledge and the treatment will be found to correspond in character.

Third. Although the moral treatment of the insane has borne some relation to the general state of society, it has never been properly understood or effectively practiced except under the direction of physicians.

The same cruelties, as we have intimated, are practiced to-day, and tolerated by society, that were in vogue some centuries ago; and will so continue until medical science shall fully embrace the whole compass of the treatment and care of the insane, and make it a part of the duty of all physicians to meet, in study and practice, all requirements of this disease as well as those of any other.

It is a striking fact that the medical profession has in all ages persistently advocated the amelioration of the condition of the insane; that it has always stood in the foreground, and in every respect in advance of philosophers and theologians. Both the latter have at times stigmatized the disease as degrading; the one holding that mental endowments and culture alone were noble—had no sympathy for suffering—while the other, beholding in the moral perversions of the disease the

operations of sin, and even possession of the devil, treated the wretched beings as though they were the authors of their own misery, and justly cursed of God. But medicine throughout this conflict stood by the sufferer even at the risk of being called unbelieving. In modern times, under the full light of science, we have almost the same spectacle practically, though not theoretically. To-day, almost without exception, the advocates of the cause of the insane are medical men. Ministers, statesmen and scholars are silent; and the reason is, they feel and accept the fact that they are powerless to direct or carry out measures of relief, and look to the medical profession. What can be demonstrated as wise and practical by the medical profession will ultimately prevail. Let that profession solve the problem. Let it once assure the public of its capability and willingness to do so, by universal preparation to meet the necessities of treatment, and all difficulties will vanish, and the public mind will soon be divested of that dread which superstition and ignorance have thrown around the sufferers from this malady.

The third consideration advanced to show the connection between general medicine and insanity, is the fact already adverted to, that insanity is now generally recognized as a bodily disease, a disorder of the brain, and must take its place in the category of the neuroses, and is in fact the highest expression of this class.

But while it may be said to have a very wide range of causation, the pathological conditions are circumscribed. Says Dr. Bucknill, "It may perhaps be strictly said, that all the forms of mental disease are dependent on one of three states of the nervous system—a state of increased, or a state of diminished, or a state of unequal excitement of that system. There is almost always accompanying disorder of some of the bodily functions;

of the circulation, which is so implicated with the nervous system, and of digestion and assimilation; and of the function by which animal heat is preserved and regulated." Has not the general profession in the study and treatment of disease, accomplished a great part of the study and treatment of insanity? The reciprocal influence of body and mind is a fact constantly before the physician. The fact that organic functions influence the mental state is well recognized. We all know that disordered conditions affect the mind in its emotional manifestations and intellectual activity. Certain morbid states in the lungs produces delusive hopes and gayety, which are in contrast with the actual state of the organ. Disease of the heart often produces depression, without any consciousness on the part of the patient of its cause. Certain conditions of the digestive apparatus exert an immediate influence on the mental state. It is in this way that the physician is constantly studying these conditions, and treating his patients in the recognition of the great law which underlies the study of insanity: that bodily conditions are the essential, potential causes of the mental state called insanity. Through the emotions we have all those ephemeral disturbances denominated passions, and with the subsidence of the cause, reason reasserts itself. In insanity we have the same thing, emotional disturbance and loss of calmness or reason. But here there cannot be as ready a subsidence of the cause as before; the cause being actual physical lesion, which must first be relieved. When a sane man chooses to control and direct his mind, and govern the fancies and incoherent train of thoughts passing through it, he does so by checking his emotions. The insane man is unable to do this, as his emotions are under the influence of a disordered physical state. His normal authority over himself, so to

speak, is lost. The cerebral disease keeps up a constant irritation which is independent of the will, and in fact unknown to the sufferer, and unrecognized by him, and by which he is constantly misinformed. If it be true that the power of self-control or self-direction is the criterion of intellectual ability, and is the highest expression of normal mental action, then its loss as the result of disease, is the psychical test of a true alienation.

The departure from a normal state in the way of feeling, thinking and acting, may be recognized by the patient, and may be accounted for by himself, through physical lesions. No false judgment is formed; therefore there is no delusion, and the man is sane. He may hear false sounds, see images, feel depressed or excited, take a gloomy or unusually cheerful view of things, and recognize all as the offspring of a disordered state. One step more and he is insane. "The lesion of intelligence and the loss of consciousness of that lesion," says Baillarger, "are two very distinct facts, and both are necessary to constitute a true mental alienation."

If the foregoing views are correct, we cannot well avoid the conclusion that there is nothing about insanity to banish it from the field of general medical investigation; and at the present time when the profession is earnestly discussing the question of more thorough and systematic medical education, would it not be well to extend it so as to embrace the whole field of medicine? What is there more difficult in the medical investigation of insanity, than in epilepsy, and the various forms of paralysis? If these and other nervous diseases receive attention in the office of the preceptor, and in the lecture room, why should the most grave, and yet curable of all diseases of the brain be excluded, and assigned to the study of a few medical men? There are really no more obstacles to successful study here, than in the other

diseases mentioned; and if there were, it could be no reason for the neglect, but, on the contrary, an additional reason why it should be studied. It is not characteristic of medicine to shun difficulties. Again, all the insane before transfer to hospitals must come under the observation of the ordinary practitioner, and he must sign a certificate of the existence of the disease. Should he not then be able to recognize it and understand its treatment? Because the majority of the insane are, and probably always must be cared for in hospitals, it is no reason why the minority who remain outside should not be treated, or if treated, treated ignorantly. If even only a small proportion can be managed successfully at their homes, it is the duty of every physician to prepare for their proper treatment. Further, if the early symptoms were better understood by physicians generally, how many cases would be checked, or modified in their early stages, and how much human suffering thus prevented? The knowledge of the premonitory symptoms of paralysis is surely more available for good, than the knowledge of the symptoms and treatment after the disease has fully manifested itself. And we have acquired this knowledge not by observing paralysis, but by patient investigation of preceding symptoms. So it is equally true of insanity. If the early symptoms of *melancholia* were as well understood by general practitioners as the premonitory symptoms of phthisis, how many suicides would be prevented, and how many advancing to that sad form of cerebral disease might be restored before its full invasion!

It has happened when I have advised persons to apply to their family physician, stating that their case is only one of general loss of tone and may be successfully managed out of an asylum, that the persons have returned with the answer that the physician was unwilling to undertake the case.

To attempt to set forth the study and treatment of insanity, would be an endeavor to embrace the entire routine of medical practice. Causation alone, indeed, embraces the most careful study of general medicine, as the disorder of any one organ may directly or indirectly affect the brain, and induce the mental disturbance. And the therapeutical treatment is but the application of well recognized principles. If insanity is caused by the vital depression following overwork, this state must be corrected. If it originates in the defective nutrition often associated with tuberculosis, then the remedies for tuberculosis are mainly to be relied upon. If in consequence of the functional impairment called dyspepsia, then that condition must be met. It is to medicine proper, therefore, that we are to look for relief, and the moral appliances of isolation, amusements, &c., must receive only secondary attention. Without the former the latter would effect but little. It is however important to study the psychical symptoms to be able to distinguish insanity from other forms of cerebral or nervous disorders. In a medico-legal view it is also important. But, I repeat, treatment is mainly concerned with the diagnosis of the physical lesions. There are cases where a knowledge of the delusions may lead to the diagnosis of the true pathological state. I recall the case of a man who insisted that he was not sick, yet complained that he had been frequently stabbed in the back by unseen assassins, and examination revealed spinal tenderness and disease of the kidneys. Do we not then come down after all to the simple practice of medicine, and the ordinary methods of study? There is no specific or peculiar lesion of the brain or nervous system, and no structural form which may be said to be the ultimate cause of insanity. Here we look for facts as in other diseases, and take into consideration cerebral

or other lesions, and weigh their influences in inducing those ultimate conditions of exhaustion which are capable of producing the disease. The physiology of the brain is undoubtedly less understood than that of any other organ, and the study of its pathology must always be difficult.

A distinguished writer (Bucknill) says: "The physiological principle upon which we have to build a system of cerebral pathology is, that mental health is dependent upon the due nutrition, stimulation, and repose of the brain; that is, upon the conditions of exhaustion and reparation of its nerve substance being maintained in a healthy and regular state, and that mental disease results from the interruption or disturbance of these conditions." Here we have but the enunciation of the physiological principle underlying all pathology. Here we require rest, nutrition, sleep. Another writer (Griesinger) says: "There are, as in other affections of the brain, only three distinct categories of morbid elements, viz.:—lesions of sensibility, lesions of motion, and lesions of intelligence;" and "three great classes of elementary symptoms—disorders of the intellect, disorders of sensibility, and disorders of motion." This brings the study within narrow and well-defined limits, and at the same time is fully comprehensive of the whole field of psychological or psychopathic study. The mental or psychic symptoms may also be brought within an equally narrow compass. The departure from the normal standard in each individual case, consists in either increased or decreased cerebral activity. The morbid mental manifestations are excitement, depression, enfeeblement, or as well expressed by Professor Griesinger, "psychical depression, psychical exaltation, and psychical debility."

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cessful teaching of this branch of medicine. Materials are already within reach, and the field of pathology is not unknown.

But it may be asked what resources would a general pathologist have who attempted to embrace insanity in his course of instruction in connection with the neuroses?

1st—He would have a vast literature.

2d—He would have a large field in the carefully-observed hospital records.

3d—The opportunity of observation in hospitals.

4th—An actual *clinique*, which would soon surround experience, presenting most of the milder phases of the disease, and certain chronic conditions, as mania of long standing, dementia and paresis.

5th—Cases in consultation, which would soon familiarize him with all the difficult and obscure manifestations.

As to the literature, I need hardly say that it is more voluminous than that touching any other nervous disorder.

Of the resources contained in hospitals, it would be difficult to estimate the value. These contain volumes in description, diagnosis, pathology and therapeutics, which yet remain to be utilized. The thousands of cases described would embrace every form of disease—all the symptoms, somatic and psychic of the preliminary stages—the development—the progress—the treatment—the relation of condition to the various restorative means used—the morbid conditions—functional and organic, causing insanity, or associated with it in the several forms and stages of this malady—diseases and conditions intercurrent—states of physical health and mental irregularity resembling or approaching, yet not crossing the border of insanity. These records, made

from time to time, through the course of many years by various persons, are actual cases, and studied carefully, would be admirable substitutes for that clinical presentation which would, at least for the present, be impracticable. As the cases are written out by frequent entries, they are also uncolored by theories of the observer.

Here could be brought out every type or shade of mania, melancholia and dementia. Groups produced, embracing all that would be necessary to instruct the student, to enable him to understand and appreciate the disease, and put him fairly in the way of practical observation, teaching him what to look for, and how to recognize the symptoms which show especially the influence of morbid physical states over the operations of the mind through cerebral conditions.

A professor well-read in the literature of insanity, and familiar with nervous diseases and nerve pathology, would soon acquire the practical information requisite for successful instruction by entering a public asylum for a time. And this opportunity would be cheerfully extended by those having such institutions in charge, and the public would welcome such an omen for the general good. The extension of medical study and teaching to embrace thus the whole field of medicine, would awaken interest, and bring out those men of education and culture peculiarly adapted to special study. That great teacher of pathology, Griesinger, of Berlin, enriched his vast fund of pathological learning, and acquired the added power of utilizing it as a teacher, by seeking observation and experience in an asylum for the insane. His work on mental diseases, which has recently been translated and published by the New Sydenham Society, is second to no work on the subject in interest and practical instruction to medical men; and

to the alienist it is doubly interesting, as it brings him so fully into the broad domain of general medicine, and reveals to him what he constantly feels, more and more, as experience widens, that he is inseparably associated with general medicine, and cannot move a step without its aid. And here let me remark, that no physician can be long in practice in a hospital for the treatment of insanity, without experiencing the absolute necessity of re-reading medicine, and especially all that pertains to nervous diseases and nerve pathology. He soon discovers that almost every case must be examined and treated through his general professional knowledge, and he becomes more and more indifferent to the mental symptoms as expressed in delusions and delusive ideas, giving his attention mainly to abnormal sensations, and the origin and progress of morbid processes in special organs, or the system generally. Moral causes fade away under practical observation, and what would seem to be excitement, or depression, or enfeeblement of mind, are, under experience, referred to tuberculosis, anemia, or other special or general conditions of impaired physical health. How these mental conditions may originate in and be sustained by the neuropathic irritation aroused under the depressed vitality of tuberculization, or other morbid processes, we may not know precisely, but we do know that these states disappear if the physical lesions are removed.

I am well aware that this subject of extending the course of medical training to embrace the study of insanity, is beset with difficulties; but they are not insurmountable. Spasmodic efforts to accomplish this result have been made in this country, and in Europe, from time to time, but until recently these have not resulted in any great good, at least not in establishing psychopathy as a recognized part of study. Dr. Benjamin

Rush probably gave the first lectures on the subject. In 1791, he was called to the chair of the Institutes of Medicine and Clinical Practice in the University of Pennsylvania, and was one of the hospital physicians. He delivered lectures to the students of the University, on insanity, with clinical instruction as a part of his course. This was continued till 1812, when his lectures were published—"an elaborate work which had long been impatiently expected." (*Encyclopedia Brittanica.*) In committing them to the public, he says, "it is with the hope that they may serve as a supplement to materials already collected, from which a system of principles may be formed that shall lead to general success in the treatment of diseases of the mind;" expressing the conviction that they could "be brought under the dominion of medicine, only by just theories of their seats and proximate causes." He undoubtedly disseminated the then prevailing opinions of the nature, pathology and treatment of insanity, and made an impression which has not yet wholly disappeared. His work became a standard and recognized authority. Among his labors was the translation of Sydenham, and a refutation of his theories of insanity, and the substitution of his own, which were in harmony with the prevailing views of pathology and therapeutics of his time.

Esquirol, in France, delivered lectures to his pupils in 1810, but he was not associated as a teacher with any of the schools of medicine. His writings, however, were appreciated, and his influence on psychological medicine was justly great and enduring. Sir Alexander Morrison delivered lectures in Edinburgh and London for many years, says his son, "to the members of the medical profession, and to such other gentlemen as signified their wish to attend them;" and "was encouraged to do so by His Royal Highness the late Duke of York, when he had the custody of his father, George III."

Dr. A. I. Southerland, at St. Luke's Hospital, London, delivered lectures on the pathology and treatment of insanity, from 1843 to 1855. More recently (1853) Dr. George Johnson delivered lectures on the subject before the Royal College of Physicians, in Edinburgh. Dr. Daniel H. Tuke has for several years delivered lectures on psychological medicine at the York School of Medicine. Dr. Guislain began in 1849 to deliver clinical lectures on insanity in the Insane Asylum of Ghent, before the students of the University in that city; Baillarger and Ferrus also in Paris as early as 1854; Dr. Pliny Earle in this country before the Berkshire Medical School, Massachusetts; and Dr. Tyler to a few pupils at Cambridge, Massachusetts. But all these, and other efforts at instruction which might be mentioned, have fallen short of systematic or efficient results, because they were partial in scope, and maintained that isolation which failed to awaken sympathy, or touch that chord of association which binds and allies any one part of medicine with the whole.

It was reserved for Professor Griesinger, in Zurich, Switzerland, and now of Berlin, to bring to those great schools of medical learning, the full realization of the importance of this subject to general medicine, as well as psychology, and to secure full instruction in this branch in connection with the teachings from the chair of pathology. Thus has been established "its true position as a proper and profitable subject of study, and as one demanding alike systematic and clinical instruction," and "its recognition as a regular portion of medical education." This distinguished pathologist maintains with his characteristic comprehension of the whole field of medical research, that medicine is one study, and that the interdependence of all its branches forbids the successful study of any dissevered from the whole, and

that "the lesions of the brain and nervous system constitute the real subjects of treatment, and their discovery is the true province of diagnosis." "Thus," he declares, "is psychiatrie intimately allied with the whole subject of cerebral and nerve pathology. What psychiatrie is, is understood by him alone who comprehends this alliance; and he only who has been duly instructed in the difficult questions of diagnosis in cerebral and nerve diseases, can embark on these problems respecting mental disorder, with hope of satisfactory results." Professor Griesinger in a recent letter says: "I remain firmly in the opinion that it is an absolute necessity to provide in every medical school for a clinical instruction in this branch of science, equally important for the welfare of the patients and their families as for the forensic duties of the profession. I remain also in the opinion that mental diseases are only a part of cerebral and nervous diseases, and that it is most convenient to connect intimately the study of mental science with the study of the pathology of nervous diseases.

"Clinical teaching in psychiatrie is not merely a future possibility, but an existing fact in several medical schools in Germany: the difficulties are by no means so great as many people think; nay, the carrying on work of this teaching is very easy, if only men of good will and experience are charged with the execution.

"Since my first lecture of 1863, I was constantly occupied in this line. At Zurich, in the summer courses of 1863 and 1864, I had a very satisfying psychiatrical clinique, only in an old and small asylum, but with really great advantage for the pupils. Since the nearly three years I am at Berlin, my psychiatrical clinique had an augmenting success every year, and my results have been very satisfactory. The Prussian Government accorded me at my proposition, when I entered its service,

the invaluable institution of a special division of the insane patients. So I can unite *de facto* the study of the two intimately connected branches, and I give now in the winter course regular lectures on nervous diseases with clinical demonstrations in each lesson. I think this way the best for the professor and for the pupils, and, I may say, for the advancement of science; but if however such a combination of the two cliniques may be impossible at another place, then I cannot but strongly recommend to carry out the clinical teaching of psychiatrie alone."

Within a year, the Bellevue Hospital Medical College of New York, has established a chair of "Diseases of the Mind and Nervous System," to which Dr. William A. Hammond has been appointed, and the "College of Physicians and Surgeons of New York" has appointed Dr. D. Tilden Brown, of Bloomingdale Asylum, lecturer on Psychological Medicine and Medical Jurisprudence. Thus the initiatory step has been taken in this country.

The intimate mutual connection of physiological laws in the maintainance of the economy, is a type of the complex symmetry of nature, and should teach us, as we seek to interpret her, that pathological laws are equally symmetric and interdependent.

It is eminently true of all the neuroses, that they are not only intimately allied to each other, but to the great mass of diseases not classed as nervous, and often interchange by what we choose to call metastasis; and thus what is one moment a gout of the toe, is the next a frightful gastralgia. To this rule insanity not only affords no exception, but is of itself the highest illustration. Cases could be given where the psychological manifestations never for a moment entered into their therapeutical aspects. Cases for example of acute mania, and melancholia, where tuberculosis of the lung was the

pathological lesion; and cod liver oil, stimulants, and generous diet were the therapeutical agents necessary for securing recovery.

I would not, however, wish to be understood as ignoring the value of psychological manifestations, while urging the greater importance of somatic symptoms. It is nevertheless true that the diagnosis of insanity in the various forms of mania, melancholia and dementia—paresis, epilepsy, &c., is but an insignificant part of the study, and may readily be acquired; but to diagnose the nature and seat of the physical lesion of the brain and nerves is the great problem to be solved in each individual case, and here the alienist stands side by side with the general practitioner. The diagnosis and treatment may be difficult; but the study, comprehension and application of the general principles of pathology and therapeutics are not essentially different from those which any intelligent practitioner is constantly called upon to apply. There is nothing mysterious or peculiar in the methods of study or treatment. It is the patient and careful investigation of laws, and the application of well recognized principles in medical science; and not a question of interpretation of mental phenomena, or the study of mind, so much as an observation of the reciprocal influence of morbid physical and psychical states on the great nervous center, the brain. It is true there are disorders of sensation which may sometimes disguise or obscure the symptoms, and thus lead the physician away from the real lesion. There are cases of latent phthisis where sensation is blunted; the cough and expectoration are suppressed because of the condition of the nerves of sensation in the lungs. Here the true cause of cerebral trouble may not at once be detected—may indeed seem to be something else than tubercular degeneracy. But experience would soon teach the

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practitioner the importance of exploring fully the whole organism in every case before settling on a doubtful diagnosis, and physical exploration would reveal the operating cause and source of the morbid mental manifestations.

We all know and feel the importance of that hygiene, for body and mind, which, in the language of a distinguished writer, is "prior to diseases, to their diagnosis, their history, and their treatment;" "prior to them and beyond them; things earlier than their beginning, which deserve to be known—the habits, the necessities, the misfortunes, the vices of men in society." But we also know and feel that these are beyond our control: we only advise. We all realize the vital importance of meeting disease at its earliest inceptive stages, in its premonitions. And as insanity has its origin mainly in minor nervous affections, and in the conditions and diseases under the observation of and familiar to the general practitioner, if he were instructed in its preliminary and developing symptoms, how often might not the disease be averted or arrested, and in how many more cases so controlled in the beginning as to be treated at home, and, in others, hospital treatment advised before any unfavorable advance of prostration. Still, the question may properly be asked, after all, will not the insane be always treated in hospitals, and more successfully? and where is the particular advantage of doing more than simple diagnosis in a general way may require? We think this has been answered, and indeed if but one case in a hundred can be treated successfully at home, it would be the duty of the profession to be prepared to treat that with all the appliances and skill which advancing science may command. No one would be justified at this day in an experimental routine which might prove more disastrous than the disease if left to

itself. But the fact is, one in twenty, and perhaps more, might be successfully treated out of hospitals, if the profession were as familiar with the disease as they might be.

It seems to me, that every possible consideration urges to the complete union of the profession, and against any further tendency to specialize in study or treatment, in a strict sense of the term. There always have been, and probably always will be, professional men who, after the thorough study and survey of the whole field of medical science, choose to devote themselves to the practice of some one branch—but they are not necessarily specialists. In fact can we admit specialties? These, so called, have their origin in necessity, and are temporary. In the progress of medical science from entire darkness, special fields were necessarily explored by laborers and observers. It required the whole lives of many men to explore the fundamental laws of physiology and pathology, and to observe and record the action of remedies, where from the nature of things there was so much obscurity. Special workers, thus engaged in limited fields, have undoubtedly contributed to the more speedy and thorough development of knowledge and practice. This division of labor has therefore served a wise and noble end, and has hurried many obscure things to early and clear demonstration. This system of investigation has also brought out those of peculiar aptitude to special fields, and has thus thoroughly utilized ability and knowledge, and strengthened the profession and blessed mankind.

But this practice or order of expediency should not be carried too far, as some would argue, because it would encourage empiricism and superficiality in study. We should adhere to unity. All are members of one body, with one aim and one glory. Psychological medi-

cine especially, is too intimately allied with general medicine to admit of specialization in any true sense of the word. With the advance of medical science, insanity has been more and more practically understood; and, happily, the mystery and dread associated with it melt away under the light of investigation and experience; and both physicians and laymen see it in a less formidable light, when it is brought before them in its true character of a cerebral disease, and only a disease. Now the triumph is complete—mystery and superstition vanish, and the insane man stands forth simply as a sick man: one, who by reason of cerebral disease, is unable to use his brain—not a man with a mind diseased, a mad mind, an enfeebled mind—but with a brain and nervous system so disordered as to disturb, confuse, heighten, or lessen the mental operations; a mind acting through a disordered organ—a spiritual being untouched by disease, looking through the disordered and broken house in which he dwells.

We must hail the complete union of this apparently dissevered branch of medical inquiry and practice, with the whole field of professional inquiry. It is of the cerebral affections among the gravest, and yet most curable, and cannot be isolated. It should be studied, taught and practiced with its congeners. There is, we all admit, nothing in the disease beyond the study and scope of the practitioner. The literature is abundant, and unfortunately cases are too numerous to justify the plea of lack of opportunity for observation and treatment. Indeed, there are many members of the profession who treat certain cases of sub-acute mania and melancholia successfully in their families, and if there is not favorable progress made, or obscure symptoms arise, seek advice and consultation with those more familiar with the subject, as we all do in other diseases. Indeed

it is not uncommon for a physician to accompany a patient threatened with insanity, or other serious nervous disorder, and consult in regard to the case and its treatment with those who are connected with hospitals, or those who have been.

If the profession who recognize the hospitals for the insane as such, and not as receptacles for confinement, would always accompany their patients whom it is necessary to treat therein, and go through the institution, and interest themselves in the methods of management and treatment, many popular errors would be dissipated, and the profession would soon become familiarized with the general subject, and be able and disposed to direct the pupils in their offices, in the necessary preliminary readings, and thus facilitate the introduction of this branch into general study and practice, as a required and recognized part of medicine.

In conclusion, brethren, let me congratulate you on the advance of our glorious profession. Year by year she treads more firmly and securely the paths which lead into the very arcana of our subtle nature; and whatever of this wondrous mechanism and these mysterious forces she fails to penetrate or measure with eye and hand, she explores and weighs with cunning instruments, the devising of her own ardent children.

More noble than philosophy, which extended no charity to the sick, infirm and defective, she accepts the divine command to care for the poor, the sick, the maimed, the blind, the deaf, the dumb. Step by step she has advanced and forced her way through oppositions of ignorance, of skepticism, of superstition, and crowned her votaries with immortal honors. Having caught a glimpse of the inner man, she has relaxed no efforts towards exploring every tissue, and her mission will only be fulfilled when she has comprehended every

law of man's being, and exhausted the resources of nature in his behalf.

The sublime spectacle of Vesalius in his first dissection, illustrates the holy ardor, the nobility, the heroic courage of the profession in his age, and in all ages. In the path of investigation was toil, and dishonor, and death, but it was the road of life for all the race of man. On his vision shone the glorious light of coming triumph in medicine—the disinthrallment of that science which should save the race. He died a martyr to his zeal, but his work survived.

To-day medicine is the same. She still follows man in every step, from the hour of his conception to his death. If he fails through weakness—if he falls in the virtuous and legitimate struggles and duties of life, if overcome of appetite or passion, he sinks into disease or degradation —if in pestilence or war, on sea or land—she is alike at his side, a minister of healing.

Blessed, beautiful profession, symbolized, yea, practiced by Christ himself!

> And ye who tread her princely courts, are justly proud,
> And they who feel her gentle hand, are truly bless'd.

HISTORY AND PHILOSOPHY OF MEDICAL JURISPRUDENCE.

BY JOHN ORDRONAUX, PROFESSOR OF MEDICAL JURISPRUDENCE IN COLUMBIA COLLEGE, NEW YORK.

In approaching the philosophy of any science, the mind is at first bewildered by the multitudinous relations under which it presents itself. Aside from abstract principles, which are few and easily recognized, the variety of their application, the subtle forms under which they exhibit themselves, and the gradual blending of their operations into each other, render their practical investigation always a difficult subject to master. Hence it is that we are driven to the common ground of accepted definition for the πον στω whence to originate all study and successful investigation. This is particularly the case in the physical sciences, where a natural correlation knits them together in a chain of mutual dependencies. But when, overpowering all these correlations, the law undertakes to apply her canons to the admeasurement of civil wrongs growing out of the operation of physical agencies, then it is that the subject, by additional complication, becomes difficult of solution. We need at such a time a knowledge not simply of positive, instituted law, but of natural law; a knowledge not of the language of human enactments alone, but of the language of physical agents as they express themselves through pathological signs. Without descending into metaphysical speculations, or losing ourselves in the mazes of dogmatic conjecture, it is still necessary that we should begin our inquiry with first principles—the germinal points—of every science. Having done this we can afterwards trace with ease and

increasing success, the relations which flow out of them; for no science can be difficult to him who has thoroughly mastered its elements.

It is not proposed, however, to enter into any large or critical discussion of the entire field before us, since that would indeed necessitate a volume of indefinite proportions. Medical jurisprudence as a science, is too comprehensive a department of philosophy to be disposed of in a magazine article. Its boundary lines exceed those even of natural history, since, as a syncretism between natural and human laws, it covers the entire field of both territories. Those who look at it only as the caudal fin to chairs of obstetrics or chemistry in medical colleges, know little of it besides its name. To them it is simply a myth, imported into the curriculum of medical study by way of ornament alone. Yet if we may trust one whose life was chiefly spent in its cultivation, and who may be supposed to have known all that proficiency in it cost him, as it will any one, desiring to follow its myriad avenues of necessitated investigation,—if we may quote the language of the distinguished Fodéré, we shall need advance no better argument, nor could we adduce a stronger one, in behalf of its majestic proportions. Let us listen to the great master, as he utters in his introduction, these striking words: "*Si l' on porte au reste á ce sujet toute l' attention qu' il mérite, l'on ne pourra qu' être éffrayé de l' immensité des connaissances qu' exige l' exercise légitime de la Médécine Légale;*"—and if we pause but to reflect upon the fact that this neglected science, only tolerated by sufferance, and hardly adopted into the sisterhood of studies in medical schools, nor often granted a separate altar and an ordained priesthood—that this humble department includes *anatomy, physiology, pathology, therapeutics, surgery, chemistry, botany and hygiene* as its medical

phasis; while with a still wider range, and regarding man as living a life of relation and responsibility towards his fellow-beings in society, it enters into the vast chambers of law, there to consider and weigh the testamentary capacity of parties; their mental ability to form contracts of whatever name or nature; the rules regulating survivorship and life assurance; the physical competency underlying the domestic relations, and determining not only the rights of the actually living, but of their posterity; and lastly, criminal responsibility as affected by insanity or intoxication;—if we go no further than these facts, we shall be convinced, at the threshold of any inquiry into its philosophy, that no one can over-estimate or over-state the comprehensiveness of this field of multifarious investigation.

But law and medicine, although uniting in the production of this third science, cannot be said to hold a divided empire over its practice; for law alone is, and must ever be, the supreme arbiter of human actions in society, nor can she surrender her authority over the temporal accountability of mankind without at the same time surrendering her life and her essential prerogatives. The application of medical jurisprudence to the admeasurement of physical facts affecting the civil or criminal responsibility of parties, amounts practically only to this—that medicine furnishes the lights of her experience, and law applies them according to the established rules of her tribunals, and as modified by the equities of each particular case. Thus the aid of medicine is often invoked; she is even at times intrusted with the scales; but law always retains the sword, always retains the right of reviewing the judgement and prescribing the penalty. And this is but just, since it leaves either science to perform its destined part in the economy of human government: law, as the

heavenly appointed governor of man in society; defining what is right and prohibiting what is wrong; protecting the weak and compelling the powerful; scrutinizing the state of the mind, together with the intention, as the foundation of all human responsibility; deliberate and merciful in her judgments, swift and terrible in her punishment: and, on the other hand, medicine, walking like a Good Samaritan with the oil and balsam of philanthropy in her hand; guiding hood-winked justice whenever she explores the dark valleys of bodily or mental infirmity, and striving to mitigate the too rigorous application of legal canons, whenever weakness is mistaken for error, and disease is mistaken for crime.

HISTORY OF MEDICAL JURISPRUDENCE.

Before proceeding to investigate the philosophy of a science of such vast proportions, it may not be amiss to indulge in a brief retrospect of its history. That anything like a perfected system of forensic medicine, whose principles are founded upon the laws of our physical being, should have been completely formed before those fundamental laws were themselves discovered, is not to be believed. To speak of it, therefore, as an established science before the labors of Harvey, Vesalius, or Fallopius had broken the seals of rational anatomy, is to confound the narrow results of ancient observation with the grander explorations of modern times. The human mind, powerful and penetrating as it may be in research; reflective and logical as it may show itself in tracing analogies and elucidating principles, cannot erect systems by its solitary fiat. These are the offspring only of centuries, the accumulated labor of generations, each receiving, transporting, and in its turn transmitting the torch of learning to its successor, and thus, little by little, building islands and continents in the great sea of human thought.

Nevertheless, one very important branch of medical jurisprudence was unquestionably recognized and provided for in the legislation of antiquity; and this branch which was founded in that first of governing principles, the law of self-preservation, formed a true system of medical police even among the Israelites and the Hindoos. The frequent lustrations and isolations of the person, enjoined as part of the ceremonial law among those nations, converted a physiological safeguard against contagion into an act of worship, in this wise insuring its daily practice by all classes in the community. And so urgent was the necessity of personal purification deemed among a population proverbially unclean, and in a climate disposing to pestilence, that the Mohammedan was ordered to cleanse himself with sand wherever water was not to be had. From this incorporation of sanitary observances into the religion of the country, it followed that priests became the earliest custodians of public health, and it may be truly said, the earliest medical jurists on record. Their education, which was of the most extensive character possible at that day, included a thorough knowledge of medicine as then understood; and they were well qualified, therefore, to act as a sanitary police. They defined the civil status of the citizen by first defining his religious and ceremonial condition. If pure in body—then might he go at large into the streets of the market places—the temple or the synagogue; and contrariwise if impure, he was at once put under civil disability and isolation. Even at this day, in India, caste, rank, is forfeited by touching articles forbidden in the religious code, and the priest among the Hindoos is still in many senses the acknowledged lawgiver, as in ages past.

These were certainly wise enactments for those days of little knowledge, and well suited to that population

among whom the source of filth has been at all times inbred and irrevocable. They show too that hygiene is the earliest study, as it is the earliest necessity of mankind in society; and in appointing the priesthood to the guardianship of public health, they gave them control over one of the chief sources of public misery—destitution, vice and crime. When we peruse the laws of those nations living, as it were, in the gray dawn of time, and without the elevating advantages of intercommunication with other peoples: working out, with no inherited models of legislation, and no established codes of scientific truth, the great problem of national prosperity—when we see them promulgating laws whose wisdom seems far in advance of the civilization which gave them birth—laws whose outlines we cannot expand, all our multiform and wonderful discoveries only serving to contribute details and formulæ for their better and more economic administration—we cannot doubt that the scholarship of that day, as represented in its legislation, was something more than history has found materials with which to describe it. If the Israelites or the Egyptians could have laws enforced among them regulating marriage and the relations of the sexes—distinguishing between mortal and dangerous wounds in order to affix penalties—and prescribing modes of embalming and interring the dead—thus involving some of the most important questions in the sanitary police of communities, we must surely believe that they fully comprehended the necessities of such regulations to be founded in the laws of our physical being—in a word, that their legislators must have been physicians. And, we need not ask, after reading the ordinances of Lycurgus, or the physical rubrics laid down by Pythagoras and Plato, whether they too had studied the laws of our bodily life.

There is no evidence, however, that any union of the professions of law and medicine in any one science and as a branch of jurisprudence was contemplated by the more cultivated Greeks. Except in questions of medical police, medical men were not often consulted by the tribunals of Greece. In that country the chief concern of legislation was to secure a robust people, capable of bearing arms, and in their prevalent ideas as to the best mode of perfecting the human species, they were led to the barbarous and unscientific practice of destroying delicate, and rearing only strong infants. To perfect this dogma of their political economy, and to provide for the health of cities and camps by assuaging the virulence of epidemic diseases, formed about the whole scope of Greek state medicine. For, aside from the admirable treatise on Air, Water and Locality, left us by the father of medicine—a treatise which still influences the civilized world—no other contribution to the literature of that subject has come down to us. Whatever may have been the limited achievements of those days in forensic medicine, the opinions of Hippocrates and Aristotle upon certain physiological problems relating to the perpetuation of the species, have always carried with them an authoritative influence, not only in the schools, but with legislators, which succeeding ages have hardly extirpated. Many of the principles of the Canon Law, as formerly recognized in the Ecclesiastical Courts of Europe, were undoubtedly founded upon the crude speculations of these authors, and in particular of the Stagirite, whose Organon was the Bible of the schools of philosophy down to the time of Bacon.

But when we pass to Rome, we meet at once the spirit of her truest grandeur in the superior character of her legislation. As early as the reign of good king Numa, a law was enacted which was intended to pro-

tect the life of the heir, by requiring medical assistance in critical cases.* And even before that auspicious day which saw the mighty lawyers of Justinian remodeling the jurisprudence of their country, the law of the Twelve Tables had made provisions of the wisest and most humane character in relation to the civil rights of posterity. The Romans who had imported their laws, as they had their arts from Greece, were almost exclusively guided in their legislation by the dictum of ancient philosophers; hence they very naturally incorporated into their jurisprudence the best models of morality and polity which their age afforded. Masters of the world, they readily subsidized its treasures, whether of art or philosophy, to the aggrandizement of their own glory, and the perpetuation of their own empire. Yet such was the petrified adherence of the age to the canons of the old masters; so much was it the rule to swear by established and mouldy authority—a custom whose practice even in the middle ages and among the schoolmen silenced every objection with the simple *sic magister dixit*—that in the Pandects of Justinian, where various titles† are created referring to crimes, physical deformities and questions of legitimacy, the courts were instructed not to be governed by the evidence of living physicians, (who might be most competent to explain particular points then at issue,) but to form their opinions exclusively *propter auctoritatem doctissimi Hippocratis.* Yet the creation of an *archiater*,‡ or state

* This was the Lex Regia "*De Inferendo Mortuo*," forbidding the burial of a pregnant woman until the fœtus should first have been extracted.—*Digest: Lib.* II., *Tit.* 8.

† These titles are "*De Statu Hominum, De Sicariis et Veneficis; De Inspiciendo Ventre, &c.; De Hermaphroditis; De Impotentia, &c., &c. Instit.: Lib.* 4, *Tit.* 18.

‡ Code Theodos.: 12, 13.

physician, whose public functions corresponded to those of a modern health officer, who was himself court physician, and the acknowledged head of the medical profession, must have imparted to his opinions great weight with the judges, notwithstanding the institutional reverence for Hippocrates. And possibly his influence was not unwisely exercised over some of his royal patients, since we find an occasional relaxation in the rigorous construction of statutes, sanctioned by imperial edicts. If we may credit Tacitus, the bodies of Germanicus and Agricola were medically examined, and in the former slight traces of poison were noticed; but whether the autopsy was undertaken at the command of some tribunal and as forming a part of a judicial inquisition, does not appear.*

In the confusion which followed the irruption of the barbarians and the downfall of the Roman Empire, we lose sight for a while of the workings of municipal regulations. The larger operations of war, conquest, and the foundation of new governments, overshadow all other considerations, and it is not until order once more reigns, and the thoughts of men can be concentrated upon the necessities of a system of jurisprudence, that we may expect to find the tamer studies of philosophy and legislation fixing their attention. In the whirlwind of savage customs which ruled society throughout western Europe during the dark ages, legal medicine could hope for no positive recognition. Its very sources were ignored, and its principles derided as a sacrilegious attempt to invade the secret haunts of nature; and in its stead ordeals by fire, water, or the judicial combat were introduced, as so many direct interrogations of the Deity. But the laws of a country, like its language, are not easily extirpated even by conquest; and it seldom hap-

*Tac. Annal. Lib. 2, 73, and Suetonius in vita *Caligulæ*, § 1.

pens that the civil legislation of a conqueror escapes the infection of local customs and language. For it is always easier to adopt a system of laws than to frame one, and the proud jurisprudence of Rome was of too practical as well as philosophical a character to permit of its easy overthrow by barbarian codes. Hence, the wiser conquerors were not slow in availing themselves of this fountain of justice. They drew largely from it, nor did they ever cease paying that homage to the laws of Rome which they had so emphatically denied to her Empire. It would not be difficult to show that the Roman law had authorized the calling and consultation of physicians before courts in difficult cases, and finding the same rule prevailing in the jurisprudence of the Ostrogoths, in Italy,* and of Charlemagne,† in France, it is easy to conjecture the source whence the rule was derived. This brief sketch may be said to include the whole aspect of legal medicine as presented to us in the laws and legislation of antiquity. That it made but little progress—that it should have been extremely desultory in its application, and should have continued a weak and inferior adjuvant to courts—will be readily understood when we reflect that most of the physical sciences upon which rests its foundations, and whence its true life is drawn, had scarcely risen upon the horizon of human thought. No Harvey had yet shown that blood circulated through the arteries, instead of air. No Vesalius had yet established a rational system of anatomy based upon positive demonstration. No Boërhaave or Van Helmont had yet explored the mine of chemistry,

* Theodoric, their King, delegated the care of justice to *consulars*, *correctors*, and *presidents*, who, says Gibbon, "governed the fifteen regions of Italy according to the principles, and even the *forms* of Roman jurisprudence." Roman Empire, vol. 4, p. 21.

† Capitularies, 116, lib. 7.

through which Priestly and Lavoisier were destined to descend into the very penetralia of matter. Man's nature was still a sealed book, before which *flamen* and augur and oracle stood dumb, and over which law herself ministered with scarcely any knowledge of its contents. Whatever, therefore, may have been her errors, they were, at most, only the reflected errors of her day and generation; nor should those things be imputed to her as crimes which were done under sanction of the highest authority she could summon, and the fullest measure of light she could obtain.

It is generally admitted that the application of medical knowledge to jurisprudence, and the practical recognition of a science of forensic medicine, only commenced about the middle of the sixteenth century. The criminal code of the Germanic Empire, originating with Charles V., and enacted by the Diet held at Ratisbon, in 1532, (*Constitutio Criminalis Carolina*) is the first public recognition and the first legal application of the science which we meet with in modern history. This celebrated code, which still rules the proceedings of German Courts, enacts that physicians *shall* be consulted in all cases where death has been occasioned by violent means, whether criminal or accidental, &c., &c. And one of the first fruits of this new authority to medicine, was her successful encounter with, and overthrow of, many dominant superstitions, which had not only fettered the public mind in those days, but cost, as in the accusations for witchcraft, the lives of thousands of innocent people.* The ordinances of the kings of France, subsequent to the days of Charles V., com-

* "Wierus, a physician of the Netherlands, in a treatise "*De Præstigiis Dæmonum et Incantationibus*, Basle, 1564, combats the horrible prejudice by which those accused of witchcraft were thrown into the flames."—*Hallam*, Lit. of Europe, vol. 1, p. 289.

bined in the form of codes, what had formerly been only customs, a tribute to the wisdom of the German emperor, and an acknowledgment of the wants of their own jurisprudence. In 1606, Henry IV. gave letters patent to his chief surgeon by which he was authorized to appoint two physicians in each town, who in the nature of coroners should investigate and report upon all cases of accidental death. And in 1667, Louis XIV. decreed that in all criminal matters requiring reports, courts should be assisted by at least one of the physicians named by his chief surgeon. Of such binding obligation were all these ordinances upon courts, that a decree of the Parliament of Paris, in 1662, and of the Parliament of Dijon, in 1650, set aside judgments rendered without the intervention of medical experts.

The foundations of medical jurisprudence being fully established as part of the municipal code of most Continental nations, commentators and compilers of its canons, and the decisions under them, now began to appear in great number. With scarcely an exception, these early writers were physicians; the Italian and German schools equally dividing the honors of authorship. It would be out of place here to attempt to enumerate by name the multifarious treatises upon this science, in its various departments, which have appeared from time to time, and would render a mastery of its bibliography alone a burthensome undertaking. With this department, every medical jurist will of course see the propriety of at least a limited acquaintance, at some time; though it will be sufficient to say in this connection, that the number of its volumes is computed at 12,000,* in order to make every one feel the necessity of a judicious selection from this great lumber-house, if

* Hoffman's Course of Legal Study: vol. 2, p. 701.

he would wish to learn nothing for the mere purpose of unlearning it.

As a branch of instruction, medical jurisprudence is but a new comer in the schools; and as its first teachers were physicians, so its first altars were erected in medical colleges. Inasmuch, also, as its first seed was cherished in the bosom of the old Civil Law, so those countries first received it which had themselves derived the foundations of their jurisprudence from the same source. Haller's lectures on juridical medicine, which were published in 1782, indicate already the establishment of a chair of instruction in Germany, probably the first in Europe. In 1792, the first professorships of the science were created in the colleges of France, and in 1803, in the University of Edinburgh. And while no special instruction on this subject appears to have been given in the schools of England before the year 1820, it had already been made the subject of lectures in the United States as early as 1804. So far as can now be ascertained, the first lectures on Medical Jurisprudence in this country were delivered in the city of New York, and to the students of Columbia College, in the fall of 1804, by Dr. James S. Stringham, then Professor of Chemistry. This chair he filled until his death in 1817, when he was succeeded by the late distinguished Dr. John W. Francis, who occupied it until the year 1826. And although Dr. Francis' name does not appear as author of any treatise on medical jurisprudence, I believe I may truly say that he has been the most voluminous contributor of personal observations in this country, to that science, and has received less credit at the hands of those whose authorship he has assisted, than is generally known. It is a pleasure to be able to pay this deserved tribute to the memory of one who was himself not only the best of friends and patrons to

the humanities in our midst—the true Mæcenas of science and art in her metropolis, but did so much also to rescue the memory of every deserving brother from the effacing hand of time.

While Dr. Stringham was delivering his lectures on medical jurisprudence in Columbia College, Dr. Charles Caldwell delivered a course on the same subject in Philadelphia, during the winter of 1812–13; and in 1815, Dr. Beck was called to fill a similar chair in the Western Medical College. Since that time, and, advanced into prominence by Dr. Beck's encyclopædic work upon the subject, forensic medicine has been considered as part of a regular course of medical study, and most schools have accordingly introduced it into their scheme of lectures, though generally as a subordinate branch, and appendant to some other chair. At last, also, the law schools have recognized it in many instances, and adopted it as an adjunct science, collateral to, and not in the main line of required studies. Slowly and surely, however, it is working its way to that eminent position which belongs to it in the internal economy of government, for it is truly a part of the *Jus Gentium*—of the *necessary* law of every State, whether in its capacity of medical police, or of forensic medicine.

PHILOSOPHY OF MEDICAL JURISPRUDENCE.

The foregoing sketch of the history of this science prepares us to see that its rootlets are implanted in the foundations of civilization. Wherever civil society exists there is a necessity for this syncretism of law and medicine, which illuminates justice, and gives to legislation itself a higher character of scientific accuracy. The internal government of France, Prussia, or England, as compared with that of Turkey, Morocco, or Persia, in all those relations of life which require protection

for the weak—preservation of the public health—the equitable administration of justice—and the officious distribution of estates—in a word, the expression of a moral power in the State, competent, by scientific illumination, to administer justice according to principles, and not according to forms, so that the spirit rather than the letter shall govern in weighing human rights and human responsibilities—this moral atmosphere can be found only where civilization, aided by revelation, has developed its most consummate fruits.

The philosophy of medical jurisprudence is founded in the necessity of applying the laws of nature in the administration of justice, no less than in the preservation of the public health. In a large range of subjects it is occupied with the consideration of topics that are, strictly speaking, exclusively medical in character.* Upon these the opinion of experts is final and conclusive. With the exception of insanity, physiological or pathological conditions of the human body do not generally occasion irreconcilable differences of opinion between experts. There is always some middle ground upon which they can meet; some acknowledged principle they recognize as fundamental, and about whose application alone they differ. But for the field of psychology, forensic medicine would be simplified into an investigation of physical laws having definite complexions, exhibiting few exceptional or contradictory signs, and amenable to something akin to positive demonstration of correlation between first causes and

*In an article of this kind, designed especially for the columns of a journal of Psychological Medicine, I have felt myself authorized to omit all consideration of such subjects as *rape*, *abortion*, *infanticide*, *poisons*, &c., in order to be able to dwell somewhat largely upon the topic of insanity, as one more germain to the character of the publication in which this sketch appears.

ultimate consequences. No link in such a chain of proof is even necessarily absent, because the efficient causes of material changes must in their very nature be material, and it is a question dependent very much upon experience in observation, whether or not we are able to trace the series of catenated influences which produce any ultimate effect. Some will see it, others will not, and because science imparts pre-vision, those who possess her experience can prognosticate. Without her light added to that of experience, we should hardly be able to push our investigation beyond the differentiation of effects, while causes would remain unobserved.

As we pass, however, from the world of matter to that of mind, we find ourselves very soon in the presence of manifestations for which there are no analogies in the former sphere. The law of proportion seems entirely dethroned. Trivial causes produce gigantic effects, and contrariwise, powerful causes produce wholly inadequate consequences. Is this a reality, or is it only phenomenal to us? Is it a fact without an appreciable manifestation on the one hand, or is it a manifestation subjectively exaggerated and without any postulate and objectively adequate cause? These perplexingly intricate problems in the realm of physio-psychology, have imparted to the science which undertakes to resolve them, a proportionally commanding character. And inasmuch as, in the administration of justice, such problems are frequently arising, to afford texts upon which legal logomachy can exercise itself illimitably, the opportunity for confusion of ideas and illogical conclusions is perhaps greater here than in any other field of human investigation. It is this fact more than any other which has given to questions of insanity such a portentous character before courts. For, if the entire sphere of man's civil or criminal responsibility may be modified by the mental

character revealed through his actions, it follows that as many interpretations as can be put upon those actions, just so many phases of responsibility will there be made out. All human responsibility turning, therefore, upon *mind* in the concrete, and as related to particular actions, the value of a science auxiliary to the administration of justice should be estimated according to the measure of good it can supply in this direction. The law looks to, and in fact employs, forensic medicine as in every sense *amicus curiæ*—a counsellor retained not in the interest of one party, but in that of truth generally; and the philosophy of this science as it has gradually been unfolded, has shown the essentially legal necessities upon which it rests. It is from its association with jurisprudence that it exercises so commanding a sway in the field of contested rights, remedies and responsibilities; and it is in that portion of it where mental unsoundness enters into the question of civil obligation, that we must seek for the reason of those principles which it furnishes to law as an illuminator of its pathway.

Law as a rule of conduct in human society pre-supposes the existence of rational beings, among whom the consciousness of civil relation exists.* Law therefore pre-supposes reason, and reason implies a mind or intellect in which that function can be performed. In distinguishing man from all other animals by this heavenly gift, God has created within us a system of natural jurisprudence, of which conscience is ruler, and intellect the external minister and instrument. The first offspring of conscience is justice, "that gods and

* Aristot. Polit.: Lib. 1, c. 2. In Homine optimum quid est? Ratio. Hac antecedit Animalia, Deos sequitur. *Ratio ergo perfecta proprium Hominis bonum est.* Cætera illi cum animalibus satisque communia sunt. *Seneca*, Epist. 76; Vid. Cicero de Offic.: lib. 1, c. 4.

men do equally adore," and the idea of justice implies obligation (*suum cuique tribuens*)—obligation in its turn involves responsibility. Therefore law, which is a rule of conduct measuring the responsibility of man towards his fellow-being in society, must, before defining the extent of his obligation, ascertain whether or not any foundation for that obligation or responsibility exists—whether or not the source or fountain of that obligation, the *recta ratio*, continues in its integrity. For it is clear that where there is no mind, there is legally no man; and where there is no man, rational and reflective, there can no law of responsibility apply. Such a being becomes simply an animal endowed with the *vis naturæ*, not the *jus naturæ*.* Whence it follows, that the most important application of medical jurisprudence to the concerns of daily life, is that of admeasuring the intellectuality of man with reference to a determination of his *civil* or *criminal* responsibility before the law. This must be considered its most important application, because it involves the largest number of interests, whether monetary, personal, or reputational. And since *property*, *personal security*, and *reputation* are the foundations upon which all civil government is built, that science cannot be of slight importance, whose practical application looks to a protection of these pillars of social progress and social prosperity. Now as the law considers the assent of the mind and the freedom of the will to be the indispensable prerequisites of every action entailing a perfect or an imperfect obligation, so it requires in every case of doubt, arising from exceptional circumstances, that the will should be proved free from duress, and the mind from disqualifying disorder. To prove the presence and the extent of disorder of the mind in any alleged case of insanity, is the contri-

* Taylor's El. of Civil Law, p. 120.

bution which medicine presents, in the form of skilled testimony, to law; and, upon this testimony, law admeasures the civil or criminal status of the party in whose behalf this interlocutory plea is made. As this is the most intricate, so it is the most debatable problem in the whole science of forensic medicine; for it is in this department in particular that the medical jurist will find his talents most tasked, and his authorities most conflicting. Wherever extremes of mental deprivation, like *idiocy* or *general mania*, occur,

> "Demoniac phrenzy, moping melancholy
> And moon-struck madness,"

there can be no question of the legal irresponsibility of its victims. *Mens peccat, non corpus, et unde consilium abfuit, culpa abest.* Such forms of disease are so patent in their outward manifestations that they silence, at the outset, all doubt and all discussion. It is far otherwise, however, with that numerous train of mental disorders, which, while existing obscurely excite no alarm, until some accidental crisis determines their explosion and their mastery over the entire intellect and the emotions. It is here that courts, losing themselves in the inextricable mazes of conjecture, require the assistance of experts, whose familiar acquaintance with the Protean shades of insanity enables them to weigh and gauge each particular case by a standard of its own. Had mankind been originally grouped into specific classes, each having its own peculiar mental disorders, and no other, we might indeed presume to frame a code of inflexible formulæ, graduated to the necessities of each class.

But nature has created no such arbitrary distinctions as these. She dislikes in fact all intrusive restrictions, all angularity of motion, of thought, and of feel-

ing; and even as in the physical world she delights to move in circles, and parabolas, and hyperbolas, so in the world of mind she gives each individual control over his own intellectual orbit, and allows him to extend or diminish its axes at will.

Were it possible to define insanity, which it is not, so as to bring it within the limits of an uniform symptomatology, we might easily dispense with the lights of medicine and of metaphysics in establishing its existence; but inasmuch as no two minds are alike, either in health or in disease, we are consequently driven to the necessity of inquiring, at the outset, into some of the general and most unvarying phenomena of intellection, in order the better to analyze and classify deviations from the average standard of health, in the operations of the mind.

The science of mental philosophy is so vast and comprehensive, its domain is so boundless, and our charts are so meagre and insufficient, that we may well hesitate as we enter upon the confines of that

> "Dark,
> Illimitable ocean, without bound,
> Without dimension, where length, breadth and height,
> And time and place are lost."

Through all the ages man has been grappling with the unknown and the infinite, and striving in a thousand ways to transcend the inexorable limits of finite intelligence. What is that inscrutable principle which we call MIND; which is akin to life, being never found without it, and yet is not life—which comprehends the universe in its grasp, and yet is not the universe—which makes destiny, and yet is not destiny—such is the great problem of our intellectual Cosmos which mankind have vainly sought to solve with their feeble

faculties. At this portal of the realm of mystery, speculative philosophy has been wearily knocking through all time for admission. There she has remained, summoning to her aid legions of followers from the wise and good of earth, they toiling, struggling, ever-hoping, all unconscious of having reached the Calpe and Abyla of mental exploration. And so the army of besiegers has steadily increased with the centuries—Aristotelians from the Lyceum, Platonists from the Academy, Cynics from the Cynosarges, Stoics from the Porch, and Epicureans from the Garden—all these meeting with Spinoza, and Hobbes, and Berkeley, and Locke, and Kant, and Comte, in one great army of embattling sages. But still the gate stands firm, unmoved, unshaken, as on that morn when light first sprung from chaos and ancient night. And the self-eluding *ego* which baffled antiquity has not surrendered its mystic *ens* to the more enlightened Positivism of modern times. Real progress in mental philosophy dates only from that time when mysticism and ontology gave way to an inquiry into the laws regulating the sensible operations of the mind. Passing by the *noumena* of intellection, and confining themselves exclusively to the *phai-noumena*, mankind have now learned to read lessons in psychology where formerly they knew not so much as its alphabet. They have attained unto wisdom by ceasing to inquire what the mind *is*, or where it is located, and by turning instead to study how it acts, and how it is acted upon. In fact they have learned wisdom by learning to confine their efforts and to limit their explorations within the realities and not the probabilities of mental operation.

And it is with the realities and not the probabilities of mental operation that the law is concerned. It is of man as naturally a rational being, and only exceptionally insane, that the law takes cognizance. Because also of

the difficulties which surround the application of principles of law to the regulation of the civil or criminal status of the insane, there has arisen a professional syncretism between law and medicine in the creation of this science of medical jurisprudence, whose most trying and tedious explorations are in the misty realm of mental alienation. There, law alone could scarce support herself by rubrics of logical deduction. And there, medicine alone could do no more than apply her gauge of health to manifestations of human conduct. Therefore is their union needed to say what the legal effects of certain physical facts shall be to the individual manifesting them and to the community at large. The cognation of the two sciences is in these essentials perfect; and their united application in cases of alleged insanity gives to jurisprudence the highest measure of moral certainty and justice which it is possible to secure.

With the mind in a normal state medical jurisprudence does not necessarily concern itself. The law needs no assistance there, nor are the resources of medicine invoked. But when disorder and discordance occur in its operations; when the equilibrium of a just balance between its faculties is so greatly and permanently disturbed as to announce an entire change in the habits of thought, feeling, conversation and conduct of the individual—when, comparing his present condition with that of previous months or years, we find him entirely unlike his former self, then it is that law interposes her equitable arm to protect him against the consequences of his own acts, or to shield society from the dangers of his unrestrained impulses. Such parties are considered as under civil disability, for where there is either absence or suspension or perversion of the reasoning faculty, there can be no legal assent of the mind to the obligation of a contract, or to the terms of a will,

nor does any criminal responsibility attach for offences committed. The insane are, as before the law, *civilly* dead.

Here, then, we come upon an exceptional class of citizens who, without being criminal, are yet, and of necessity, in custody and under some form of guardianship. They are said to be of unsound mind, or as the law more aptly describes them, *non compos mentis;* still it is not the mind, so much as its manifestations, which are disordered. It is a want of proportion and harmony between its faculties which occasions mental discord. A broken or exaggerated relation lying somewhere between the *noumena* and *phainoumena*, and giving rise to an *epiphainoumena*, in other words, an idea represented to the mind by a distorted or delusional symbol or image. Yet the mind itself must always be considered unitary in principle, one and indivisible, and although stripped of every faculty, capable of manifesting itself to our senses, cannot on that account be conceived as extinguished. Its avenues of communication with other minds may be closed by death or disorder, but that of itself does not prove its extinction. It may leave the body in which it has sojourned, when death assails the latter, and may and does in fact escape from the fetters of earthly union; but who believes that it dies, or suspends its activity from these causes? Who believes that it does not continue an individual and distinguishable mind throughout all eternity?

But aside from these dogmas of Christian belief, we must consider the mind in its relation to an organ, the brain, without which in a finite state we never find it existing. The brain, physically speaking, is the organ of the mind—the instrument through which, in human beings, the mind expresses its existence. And the chief glory of this organ is its endowment with a faculty

(*animal-sentient*) which no other created organ shares. Receiving a material impression, it returns a sentient impression, thus developing from a physical stimulus entering through the senses, an intellectual perception and apprehension. From this indissoluble connection of mind with matter, we perceive that there is a bond of sympathy between them, which more particularly reveals its presence in times of bodily suffering. Whenever the body is racked with pain, the mind concentrates its sympathy upon this condition, and refuses to be diverted from it. And when the degree of pain or of febrile excitement is exalted to its highest stretch, the mind often becomes so exquisitely sympathetic as to act irrationally—in other words, delirium sets in, for, in the language of Lear,

> "We are not ourselves
> When Nature being oppressed, *commands the mind*
> *To suffer with the body*,"

or, as Lucretius also expresses it:

> "Quin etiam morbeis in corporis avius errat
> Sæpe animus; dementit enim, deliraque fatur."
> —*Lib.* 3, 464.

From these premises we deduce two necessary conclusions, viz.: First, that *the dualism of mind and matter renders them mutually influential;* and Second, that disorder of either organism cannot long continue without affecting the equilibrium and health of the other. From these data we must conclude that mental unsoundness is not so much a disease of principle as it is a disease of relation—of relation between the functions of the mind themselves, and of relation between the functions of the mind and those of the body. Its seat is therefore in

the collective personality of our duplex nature.* Granting this to be true, we are at liberty to take sides neither with the *somatists*, nor the extreme *psychologists*, but avoiding both in the search for a golden mean, we can safely rest our conclusions only upon the doctrines of an *intermediate* theory, (*in medio tutissimus ibis.*) This appears to be the only true and orthodox rationale which the calm, deliberate judgment of the present day adopts in explanation of mental unsoundness.

It would not be difficult to show that insanity, as a form of disease, was recognized in the earliest days of the medical art; nor that it excited, as it does now, the attention of philosophers, poets and legislators. Were I to yield to the temptation which here presents itself, of making an excursus into the fields of psychological literature, I could easily consume the space allotted me in selections and illustrations drawn from one of the richest and most captivating store-houses of history. It must suffice in an article like this, and when only the philosophy of a science is to be discussed, to mention a few names, in order to recall to the minds of classical scholars the characters of insanity which they represent. The feigned madness of Ulysses, which Palamedes discovered; that of Ajax, who mistook a flock of sheep for the sons of Atreus; that of Orestes, pursued by Furies; or that of the heaven-inspired Cassandra, all show that the old poets well understood the physiognomy of insanity. In the field of hallucinations, in particular, the student will find everything that the most ardent imagination could desire, all in fact that novelists, poets and metaphysicians seek for in the mys-

*Feuchsterleben, Med. Psych.: § 123; Brodie, Psych. Inq.: London, 1854; Falret, Leçons Clin. sur l'Alien: Ment. Lec. 1, p. 8, Paris, 1854.

tical and inscrutable essence of our emotions.* And he will there learn how the epidemic religious lunacies which swept over Europe during the middle ages—the Pastoureaux,† the Flagellants, the Bianchi, the ecstatics of the Cevennes, or more lately the *Vampyrism* of Hungary, Moravia, or Lorrain, and the *Mommiers* of Switzerland—all arose out of an expansion of those mystic ideas, which, among the ignorant and uneducated, are ever struggling to crystallize themselves into forms of religious ceremonial. And, among the aberrations of great intellects, ever treading on the confines of insanity, if we may credit the philosopher of Stagira—that, *nullum magnum ingenium sine mixtura dementiæ*, or, as Dryden has gracefully paraphrased it,

> "Great wit to madness nearly is allied,
> And thin partitions do their bounds divide."

Among these infirmities of genius, the inquirer will find himself well rewarded by studying the Demon of Socrates,‡ the Amulet of Pascal, the imaginary chorus of Paracelsus, the contests of Luther with Satan, the visions of Mahomet, Swedenborg and Benvenuto Cellini; all exemplifying true manifestations of that *hallucinatio studiosa* which is born of an over active

* Brierre de Boismont Des Hallucinations, &c. Paris: 1852; Eusibe Salverto "Des Sciences Occultes," &c. Paris: 1856.

† Hallam's Middle Ages, p. 464; Du Cange, *Pastorielli et Verberatio.*

Vid. Horat. Epist.: Lib 2, 2, 128, for a most beautiful description of a hallucination.

‡ On this very interesting question, which has exercised the educated mind of the world for centuries, vid. Xenophon's *Memorabilia*, Plato's *Apology*, *Banquet*,&c., Plutarch on the Demon of Socrates, and a review of these in a recent work entitled, "Du Demon de Socrate," par L. F. Lelut: Paris, 1856.

and heat-oppressed brain. But, for the most life-like delineations of insanity in any language, we must turn to Shakspeare, whose psychology is as perfect in all respects, as though it had been written by one who had made insanity the study of his life-time. Surely, no master of the human passions has soared nearer the sun than he, and none so deftly limned, in all the variety of their manifold aspects, the sad aberrations of the distempered intellect. Whoever has thoroughly possessed himself of those master-pieces of dramatic excellence that form the characters of Hamlet, Ophelia, Lear, Macbeth, Timon of Athens, or the melancholy Jaques, has taken a deeper lesson in the mysterious features of mental disorder, than all text books, or reports of insane asylums can impart to him.

As a disorder overpowering the will and deranging the manifestations of the mind in its postulate perceptions, insanity has been well known and equally well described in all ages. And its disqualifying effects upon its victims, in all acts involving a civil or criminal responsibility, has ever been recognized in the jurisprudence of civilized nations. The laws of the twelve tables made provision for the guardianship of *lunatics* and *prodigals*, and the enactment was repeated in the Institutes of Justinian.* The law of England and of our country has always regarded with peculiar and tender solicitude, persons laboring under mental unsoundness. Hence, their *contracts* and *wills* are always deemed voidable, according to the degree of incapacity of their understanding, and their actions entail no criminal responsibility, whenever it can be shown that the mind was not capable of judging of the true nature of the act committed. This question of the degree of in-

*Table V. *Si Furiosus est*, &c; Inst. lib. 1, Tit. 13, 26; Horat. Sat.: lib. 2, 3, 214.

tical and inscrutable essence of our emotions.* And he will there learn how the epidemic religious lunacies which swept over Europe during the middle ages—the Pastoureaux,† the Flagellants, the Bianchi, the ecstatics of the Cevennes, or more lately the *Vampyrism* of Hungary, Moravia, or Lorrain, and the *Mommiers* of Switzerland—all arose out of an expansion of those mystic ideas, which, among the ignorant and uneducated, are ever struggling to crystallize themselves into forms of religious ceremonial. And, among the aberrations of great intellects, ever treading on the confines of insanity, if we may credit the philosopher of Stagira—that, *nullum magnum ingenium sine mixtura dementiæ*, or, as Dryden has gracefully paraphrased it,

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Vid. Horat. Epist.: Lib 2, 2, 128, for a most beautiful description of a hallucination.

‡ On this very interesting question, which has exercised the educated mind of the world for centuries, vid. Xenophon's *Memorabilia*, Plato's *Apology*, *Banquet*,&c., Plutarch on the Demon of Socrates, and a review of these in a recent work entitled, "Du Demon de Socrate," par L. F. Lelut: Paris, 1856.

and heat-oppressed brain. But, for the most life-like delineations of insanity in any language, we must turn to Shakspeare, whose psychology is as perfect in all respects, as though it had been written by one who had made insanity the study of his life-time. Surely, no master of the human passions has soared nearer the sun than he, and none so deftly limned, in all the variety of their manifold aspects, the sad aberrations of the distempered intellect. Whoever has thoroughly possessed himself of those master-pieces of dramatic excellence that form the characters of Hamlet, Ophelia, Lear, Macbeth, Timon of Athens, or the melancholy Jaques, has taken a deeper lesson in the mysterious features of mental disorder, than all text books, or reports of insane asylums can impart to him.

As a disorder overpowering the will and deranging the manifestations of the mind in its postulate perceptions, insanity has been well known and equally well described in all ages. And its disqualifying effects upon its victims, in all acts involving a civil or criminal responsibility, has ever been recognized in the jurisprudence of civilized nations. The laws of the twelve tables made provision for the guardianship of *lunatics* and *prodigals*, and the enactment was repeated in the Institutes of Justinian.* The law of England and of our country has always regarded with peculiar and tender solicitude, persons laboring under mental unsoundness. Hence, their *contracts* and *wills* are always deemed voidable, according to the degree of incapacity of their understanding, and their actions entail no criminal responsibility, whenever it can be shown that the mind was not capable of judging of the true nature of the act committed. This question of the degree of in-

*Table V. *Si Furiosus est*, &c; Inst. lib. 1, Tit. 13, 26; Horat. Sat.: lib. 2, 3, 214.

capacity of the understanding, has given rise to much discussion in courts. It has divided opinions upon the subject of mental unsoundness into two classes, and driven either side to extreme views. There are those who, planting themselves upon the unitary and indivisible character of the mind, assert that there are no degrees in insanity, consequently no *monomanias*, and no partial insanity. With them it is total insanity or none at all. Others again believe that monomanias can exist as accompaniments to minds otherwise healthy, so far as human art can detect; and except one particular illusion, producing aberration of the judgement with reference to itself, competent to reason correctly upon all other subjects. If this be admitted, then we hazard nothing in asserting that in many instances monomania cannot be distinguished from exaggerated eccentricity, and may therefore be mistaken for a disease, when it is in fact only the natural habit of mind; as we say of one man that he has a poetical mind, and of another a mathematical mind, both being *eccentric* and diametrically opposite, yet neither state arguing insanity *a priori*. It is this extreme difficulty of determining what amount of individual dissimilarity any person shall be allowed to exhibit in his opinions and conduct, as against a certain arbitrary and conventional standard, having only a local or temporary character; it is this difficulty of determining how far a man has a right to be himself, without incurring the imputation of being insane; which renders the doctrine of monomania so illogical. For, in its strictest application, it is sufficient for any one to be unfashionable in garb, demeanor or opinions, to be at once decreed insane; and the only standard of mental health recognized therefore would be one never originally created, viz.: entire uniformity in all things between all men.

This doctrine of partial insanity it has been the province of medical jurisprudence to interpret to courts in such a way as to convince them of its fallacious character. And while American courts are still said to admit its existence *eo nomine*, they certainly have not in their rulings treated it as a form of true mental unsoundness. All their decisions, whenever this point has been mooted, have glazed over the significant principle that the law cannot concern itself with *degrees* of insanity, to say instead, that, wherever the subject matter of the transaction, be it contract or will, is not infected with insanity, the act, even of one alleged to be partially insane is only voidable, and not *ab initio* void.* In England this was also the rule repeated and reaffirmed in all those decisions which have immortalized the name of Sir John Nicoll, nor was it ever questioned until the year 1848, when Lord Brougham, in a case before the Privy Council, ruled that it was erroneous to suppose that a mind established to be partially insane, could be really sound upon any subject, and therefore competent to make a will. This decision was the first introduction of a purely medical and psychological dogma into the elements of a legal judgement, and while abstractly correct, has not yet secured general recognition in our courts. Nor is this surprising, since under this ruling great hardships might occur, and great wrong be done in the sacred name of Justice. For, were Lord Brougham's

* "Courts in passing upon the validity of a will do not measure the extent of the understanding of the testator, if he be not totally deprived of reason; whether he be wise or unwise, he is the lawful disposer of his property, and, his will stands as a reason for his actions. A man's capacity may be perfect to dispose of property *by will*, yet inadequate for the management of other business, as for instance to make contracts for the purchase and sale of property."—*Stewart's Exrs. vs. Lispenard*, 26 *Wend.* 255, and reaffirmed in *Blanchard vs. Nestle*, 3 *Denio*, 37.

dictum* strictly applied, and assuming delusion and insanity to be convertible terms, any individual occasionally visited by a hallucination, which Donne describes as "eclipses, sudden offuscations and darkenings of the senses"—such in fact as visited Luther, Swedenborg, Pascal, Dr. Johnson, &c.,—would be deemed incompetent to perform any valid testamentary, or other legal acts. According to this view, hundreds of minds competent to transact business would be denied the right of finally disposing of their estates.

It must be evident to all that if we could extricate ourselves from the confusion of terms, and rightly understand the true import of the term insanity as necessary to be recognized at law, we should not disagree practically, upon that to which, theoretically, we can all subscribe. We must know at the outset whether we use the term abstractly and absolutely, or relatively to some particular transaction. Speaking abstractly of any two opposite qualities, like health and disease, it is unquestionably true that both these conditions cannot coexist with reference to time and subject. They mutually exclude each other in one of these particulars. Thus, and as an abstract moral proposition, we are either good or not good, and if not good, then bad. And, speaking psychologically, we are either sane or insane, if not the one we must be the other. And yet it is also true that *apparently* we may be both sane and insane at the same time in relation to different subjects,

* "We are wrong in speaking of partial unsoundness, we are less incorrect in speaking of occasional unsoundness; we should say that unsoundness always exists, but it requires a reference to the peculiar topic, else it lurks and appears not. But the malady is there, and as the mind is one and the same, it is really diseased, while apparently sound, and really its acts, whatever appearance they may put on, are only the acts of a morbid or unsound mind." —*Waring vs. Waring*, 6 *Moore, P. C. Cases*, 349.

as we may be truly sane, and again insane at different times on the same subject. According to Sir John Nicoll,* this principle was long ago recognized by the law of England, and formed the foundation of all adjudications in cases of partial insanity. Nor can its correctness be doubted. The history of religious lunacy abundantly proves that the followers of fanatics and enthusiasts, during their continuance in the bonds of delusion are, none other than insane, while in other respects *apparently* sane; and when recovered from their delusion will it be pretended that they can never afterwards entertain sound religious views? Will it be asserted that a Thug or a Parsee when he casts off the slough of his old creed can never become a Christian? Or shall every Millerite and Mormon be deemed incompetent to make a will or a contract, though in other matters sane enough? These are the ends to which abstract and absolute constructions of principles would lead us. But neither law nor medicine deal in abstract propositions. The science of numbers can avail them nothing in determining the laws of our physical or moral nature. For Justice in her inquests upon human conduct considers the individual *relatively*, and under the light of moral evidence. In weighing his civil or criminal responsibility, it weighs all his surroundings, his age, his infirmities of body and of mind, the influences to which he has been subjected, together with the motives for acts. In none of these things does it prejudge him, but on the contrary exacts evidence in support of them all. Therefore, and regarding the majority of men as sane it presumes them to be so until the contrary appears. And whenever alleged insanity occurs, its effect is required to be shown before the individual shall be deprived of his civil rights; since no

*Dew *vs.* Clark, 1 Addams, 279.

presumption of insanity follows from proof only of great eccentricity, and even in what is called partial insanity, before courts, an individual has rights of which the law will not wantonly deprive him;* and contrariwise, incurs responsibilities both civil and criminal, from which he cannot escape.†

But the greatest difficulty encountered by medical jurists in the field of their labors before courts, has been in the department of criminal law. As the philosophy of forensic medicine rests upon the necessitated aid of Medicine to Law in questions of human responsibility, so it has had, as a dual science, to contend, in a measure with both of its parents; at times taking sides against one, and subsequently against the other. The French school of psychologists founded by Pinel, has the merit of advancing the knowledge of insanity to a degree not previously possessed; and of ameliorating the treatment of its victims so as to secure the greatest possible benefit from rational medicine, if an increased number of recoveries be any test of successful therapeutics. But that school also introduced an apple of discord into the forum of juridical medicine, which, while it has immortalized its name, will yet be looked upon in each passing year as the most dangerous error and specious stumbling block ever placed in the pathway of justice. In fact it is the most remarkable illustration of how far the reverence for a name can silence criticism, and how easily even the logistics of jurisprudence may be made to contradict themselves, by courts too readily accepting dogmatic assertions for positive conclusions. It is hardly necessary to say that we allude to the doctrine of *moral* insanity. If we examine the physiognomy of this

*Stewart's Exrs. *vs.* Lispenard, 26 Wend. R., 255.

†Commonwealth *vs.* Rogers, 7 Metc., 500.

psychological sphinx and read its character in the words of one of high authority, we shall only wonder the more that any court should ever have allowed it to be discussed as a possible entity within its walls. In these cases, says Dr. Winslow, "the person manifests no mental delusion; is not monomaniacal; has no hallucination; does not confound fancies with realities; but simply labors under a morbid state of the feelings and affections, or, in other words, a diseased volition."* But this last sentence is hardly finished: it should have terminated with the proper inference to be drawn from this critical description, in the only words applicable to the case, viz.: *and is not insane.* Of course not. Why should any man who so nearly resembles the majority of mankind as to be practically undistinguishable from them—why should this man *in particular* be called *morally insane?* Are not all Adam's offspring more or less morally insane? Where's the perfectly healthy moral nature among us? Judged by so elastic a system as this, why bring the plea up in behalf of the prisoner, when it is just as easy to accuse the Court itself of insanity, and demur at once to its jurisdiction? The description of a moral lunatic given above might suit the judge, the jury, the district attorney, the witnesses; any one in fact whom we may please to consider as having acted from irresistible impulse, and without rational motives. The door being once opened to such a plea as this, all human responsibility ceases—Satan himself becomes converted into a simple moral lunatic, and vice, like its father, appeals to our tenderest pity. Vice in fact ceases, or by substitution of names and perversion of principles passes into a disease and a misfortune.

But why use the term *moral* at all, in speaking of insanity? Insanity by itself is a sufficiently expressive

* Plea of Insanity, p. 43.

term, and if any one be insane, he is none the more so for being *morally* insane. If the adjective were simply superfluous in this connection, no harm would ensue from its use; but it is precisely because the term is meant to express a state of mind of which there is no collateral nor even direct symptomatic evidence, that its introduction into criminal jurisprudence has been so strongly opposed. Nor can this be matter of surprise to those who recognize the binding obligation upon courts of the principle underlying the well-known maxim, *De non apparentibus et non existentibus eadem est ratio.* In pure consistency with this key-stone in the arch of all legal evidence, no tribunal can otherwise rule than that the plea of *moral* insanity, as based upon the description of a state of mind in which all the ordinary symptoms of insanity are absent, is an illogical and fallacious one, self-contradictory, and containing its own best refutation. The first part of the plea admits that the person exhibits no evidence of intellectual derangement—no insanity in fact—while the second part raises a special traverse to this, by denying that the ordinary conclusion of such a premise should follow, and asserting instead, that, granting all the foregoing disproof of insanity, the person should still be considered insane, not in the common, ordinary way, belonging to vulgar, *organic* causes, but through some metaphysical disturbing force which acts alone upon the *will and the affections.* We admit that the doctrine is exceedingly erudite, so recondite in fact as to find no legitimate place within the pale of so pragmatic a science as Jurisprudence. Like the doctrines of *con and trans-substantiation*, the dogmas of homoiousian or hypostatic believers, or problems relating to the future state of disembodied spirits, it is a doctrine more suitable for a senate of theologians than a jury of laymen. It belongs

to the middle age—the metaphysical period, as M. Comte would style it—of Forensic Medicine, but is fast giving way to that inevitable positivism, which, in the history of mental progress, always marks the attainment of a broad table-land of truth, and the building of the last, permanent foundations of any science.

It would be well, therefore, if the term *moral* insanity, which at law is only an *ignis fatuus* leading us into bye-paths and labyrinths of confusion, could be interdicted in our courts. And yet it is probable that we shall not immediately be able to shake off the bonds of this captivating designation, inasmuch as there are rulings upon it which turn precisely on the distinction between moral and intellectual operations in the mind. "Shadowy, fluctuating and indefinable" as is the boundary between these two mysterious realms, Law has still been compelled to search it out; and although she has walked onwards, groping her way through the dark, like Virgil's hero exploring the way through Hades,

> "Quale per incertam Lunam sub luce maligna
> Est iter in sylvis,"

in vain endeavors to find the coveted line, she has only returned disheartened to plant herself upon the dogma that "moral insanity is always preceded by an efficient cause of mental disease," and that, where no organic changes or delusions of the intellect are present, it is impossible to distinguish it from vicious propensities.*

In its slighter manifestations, therefore, it is emphatically an enigma, a sphinx, which even the most expert medical Œdipus cannot always unravel; and until radically established in the moral system, it hovers long on the confines of disease and depravity. Hence,

* Bucknill and Tuke Psychological Med., p. 328.

the law heretofore, without absolutely rejecting this doctrine of disease, has received it with caution and hesitation, because its boundaries are so indefinite, and its application in practice is open to such irregularities and contradictions of construction, that no rule of action can be framed upon it. It is in fact the true legal chaos;

"Non bene junctarum discordia semina rerum."

The part which must thus be taken by forensic medicine against moral insanity will prove in its consequences of lasting benefit to the administration of criminal justice. This is a duty it owes to both sciences of law and medicine, for in its bosom alone can an union occur between them, and that union will always remain impossible, so long as a purely metaphysical dogma, espoused by medicine as a canonical principle in its interpretation of insanity to courts—is attempted to be forcibly and illogically introduced into the adminstration of justice. The reasons for this antagonism to the doctrines of Pinel we have already shown, nor do we think its warmest advocates can fail to admit that it is daily losing ground in the scientific world. There must be some good cause for this. Prejudice alone was never sufficient to dethrone a principle of truth once crowned in the temple of science. For the recoil of a truth momentarily oppressed, invariably carries it beyond the reach of future cavil. Such has not been the case with moral insanity. Slowly receding before the increasing lights and logic of medicine, it is fast surrendering the field usurped by it, nor can that day be far distant which shall see it entombed among the errors of the past.

One great duty yet remains to the medical jurist in questions of insanity before courts; the greatest and

most difficult perhaps of any undertaken by him, and one too, whose proportional advantages to the administration of justice, can be measured only by the multitude of human relations in which it presents itself. We mean the duty of expounding to courts the utter fallacy of making the knowledge of right and wrong a test either of sanity, or the foundation of human responsibility. It is Pascal who wisely says that morality is often but a question of latitude, so that what is right on one side of the Pyrenees is wrong on the other. And every age and country will bear witness to the fact that right and wrong are questions of feeling as well as of reason, and regarded by men variously, in the abstract, no less than in the concrete. Individually, too, the innate sense of justice which moralists assert dwells in every one, is always subordinated to laws of temperament, disease, or influences of education. The knowledge or conviction of right and wrong is separate from other pure mental states, with which it may or may not sympathize and suffer. Hence, it is not necessarily, nor wholly destroyed in insanity. And its presence should not be taken as evidence against the existence of such a state; for it may coexist with the most perfect delusion. The bridge which unites the abstract to the concrete may be broken in some part, and the mind which knows right from wrong in the universal sense, may not be able to trace or follow its application out, in a particular instance. This is the quicksand in which courts are too apt to bury themselves, concluding that if a man knows right at all, he knows and feels its binding obligation in every particular instance, and the same may be said of wrong. Whereas, in fact a case of insanity seldom exists in which there is not such knowledge, and where too, (as always appears most incongruous to a layman,) reason is not found in juxtaposition with unreason;

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precisely as a man with a broken leg has some power of motion still, although the fulcrum upon which the muscles exert themselves is wholly impaired; in other words the muscles may act independently of the bone, but in such case they act at random. The knowledge of right and wrong as either a direct or a collateral standard of mental health, and consequent responsibility before the law, must be abandoned. It is of no more value in fact, than the knowledge of one's own personality, and few indeed among the thousands of lunatics who fill our asylums, do not possess that. It is a sign of little value in any case, and has, unfortunately for the cause of justice, always been unduly magnified in importance. Let us learn wisdom with the passing years. The province of a true philosophy is to point out the errors which, descending to us under the majestic cloak of precedent, still fetter our judgments, by first blinding our eyes. We must criticise, then, whatever commands our obedience, in order to ascertain whether it be justly authorized to do so. If its title to prerogative authority be good, it will court, rather than shun a rigid scrutiny; but if on the other hand its title be usurped, the sooner the fact is exposed, and the fallacy exploded, the better. This is the grand and solemn duty which is assigned to medical jurisprudence, a duty only to be discharged successfully by the concurrent action of law and medicine. From this imperfect panorama, it will be seen, that there are grave responsibilities resting upon both professions in their disposition of the divided empire of insanity. There are mutual obligations to assist—not to resist—each other's progress here; nor, because their paths are not always parallel, need they greatly diverge. There are mutual concessions to be made, which derogate in nothing from the dignity or the merits of professional legends. There are concessions to be made to

medicine—that Divine art than which, says Tully, none brings men unto a nearer resemblance to the gods, because she holds the vantage-ground of physical exploration—because she bears the only torch that can light us in our way through the misty realms of disease, and thus lends the opulence of her experience to the task of nicely adjusting the measure of our mental capacity. Bravely and sincerely have her ministers labored in this field of mystery; zealously and disinterestedly have they sought to bring a higher measure of light, and a truer interpretation of the results of mental infirmity, into the deliberations of the Forum.

> "And for the testimony of truth, have borne
> Universal reproach, far worse to bear
> Than violence; for this was all their care,
> To stand approved in sight of God, though worlds
> Judged them perverse."

And there are concessions to be made to the majesty of law, to whom "all things in heaven and earth do homage;" and to whom also by right of primogeniture, belongs the government of man in society. It is to her, the only bulwark against "the desolating flood of wild misrule," that we owe our liberties, our social security, peace, progress and prosperity. It is to her, the calm impassive goddess whose shrine is *reason*, and whose temple, "orbed in a rainbow" of truth and justice, is closed against no suppliant, however weak, that we look for the secure enjoyment of all those temporal blessings which spring from industry and thrift. 'Tis wise, then, that her jealous conservatism sanctions no sudden or wide departure from well-tried experience, but while drawing to herself the lights of kindred learning determines the extent to which she will employ them. For the safety of all jurisprudence depends upon an enlightened and moral judiciary; one

> "Whose blood and judgment are so well commingled,
> That they are not a pipe for fortune's finger,
> To sound what stop she please."

But fortunately there is a middle ground, equidistant from all ultraisms and citraisms, where both professions can meet and join hands in their final judgment upon this branch of municipal law. This ground is already well marked out in the recorded decisions of our courts and those of England; there is no reason why, for the present at least, it should be altered. There may indeed be occasional differences of opinion as to whether some enlargement of this ground should, or not, be made so as to include an extraordinary and exceptional case. Instances may occasionally happen where a mistaken zeal or humanity, seeks to force established opinion beyond the limits of rational, moral evidences; and not succeeding in this, professional pride is wounded and writhes under defeat. But these are only differences of individual opinion, and should carry no weight as against the sodality of law and medicine. Instead of leaving rankling memories behind them, they should be like Hooker's anger, only "the momentary bead upon a phial of pure water, instantly subsiding without sediment or soil."

LAST WILLS—UNSOUND MIND AND MEMORY.

The force of a last will is wholly conventional. The moment a man dies, all his right to property dies with him. As he came into the world, so he goes out of it. Whatever he acquires from his birth to his death is his for possession, for maintenance, for enjoyment, for dutiful contribution, and for free giving, as he goes along. It is at his disposal, so long as he lives to dispose of it. When he is dead, his natural powers and rights, whatever they may be, die with him, and "there an end." This is the state of the case simply and absolutely.

But man leaves behind him when he dies, not only all his possessions, but usually children, or parents, or brethren, who are either in a state of dependence upon him, or so intimately connected with him, that the first spontaneous suggestion of the social state is, that they should have the benefit of his industry and his acquisitions; and, therefore, the first custom or law of a social state is, that they, in a certain gradation of ties, and perhaps, too, because they are in the actual possession, should inherit and enjoy his property; children first, and, failing these, then the nearest of consanguinity. That there is a touch of natural and instinctive feeling in this, is witnessed by its universality, even amongst the most unconventional savage tribes. It is wholly independent of any expressed will or direction of the deceased person, or any attempt of his to regulate the descent or distribution of what he may leave behind him; but so strong is the presumption of such an instinctive intent of his, that, to this day, such a disposition is made by general usage or by positive law, in most civilized countries, in cases of intestacy, as the

disposition which would most surely accord with the wishes of an intestate, had he lived to express them.

The right to make a will, particularly one conflicting with this congenial sentiment, that shall have a posthumous vigor and be any wise obligatory, is, therefore, not a pure natural right. Possession, which was probably the first recognized right to anything, and is still claimed to be "nine points of the law," was commonly in favor of the family of a dying man; and nothing but superior force, in the primitive stages of society, could dispossess them. As there might be more than one descendant in such possession, the question would obviously arise which one should be *in loco parentis* and take the whole *relicta*, or whether all should take equally; or whether all the brothers alone; or the sisters equally or in some other proportion with them; or all the sisters alone; or the elder or the younger son; should take the whole, all being, at the death of the common ancestor, in common possession. The dispute which such doubts and rivalries would occasion, would naturally suggest to the possessor of property the idea of making some equitable disposition of it, to be effective after his death. He might, indeed, distribute it among them absolutely during his life time, by present gift; but then he would stand in King Lear's danger; for he might have unnatural sons and daughters, who, after getting his possessions, would oust him from the enjoyment of them, and reduce him to the nakedness of his birth, long before the natural period for the inevitable nakedness of his death.

As social states matured, various customs sprang up, and governments began to assume different forms, demanding differing rules to regulate the possession, ownership, transfer and inheritance of property. The rules also varied regarding rights to the soil, and rights

to personal effects—to what was permanent, and to what was transitory. Without pursuing the history of these diversities, it is sufficient to say that, as a general custom or law, the property of the father of a family descended to one or more of his children, with certain possessory rights to a surviving wife; until, finally, the power of disposing of property, at first, the personal, and then the real, by a will of its owner, expressed more or less formally during his life time, became, in all civilized countries, a generally allowed and legal mode of conveying it.

But this power when finally conceded, was never without some restraints, the badges of its conventionality, and of its subservience to positive, rather than natural, law. Indeed it is, and always has been, (formerly more than now,) so various in various countries as to extinguish the idea of any instinctive feeling so prevalent and uniform as to confirm the theory of a natural right. In England, until Henry VIII., a man could not make a will of real estate, except by a clumsy evasion of the common law in the guise of a conveyance to uses; and in this country, the details of the law of inheritance and of wills differ sensibly in the several States; all concurring, however, in such a general preference of the family and descendants as goes far to countenance the conviction that inheritance is really more of a natural right, than the right to make a will disturbing it.

Yet the power to make a will giving a different direction to the posthumous course and disposition of property, is of such long and universal allowance, that it is now almost as strong as if it were a natural right, like the right to breathe, or the right to work. "Is it not lawful for me to do what I will with mine own?" is a triumphant interrogation affirmative. Even natural rights, however, must, in the social state, submit to

much clipping and shearing to make them decent or sufferable. We do not tolerate the natural right to go naked (except in ballets and bagnios,) nor the natural right of a promiscuous intercourse of the sexes, nor the natural right, so claimed, of suffrage, nor the natural right of the strongest to appropriate whatever comes in his way; although it must be confessed that we are restiff under some of these restraints, and are prone to antiquate and cast off many respectable conventionalities, and much positive law, particularly if it be of the Decalogue; as if savage life were, after all, the only free life; and a state of nature, on the whole, the easiest, as it is the most slip-shod, of human conditions.

The testamentary power thus being, for any binding force it has, the creature of the law, the legislature must be quite competent to modify and regulate it according to the exigencies and policy of the state; and, amongst other things, to prescribe what condition of mind shall exist to give effect to any declaration in the nature of a will, and what indications shall be deemed, on the whole, as evidence of the state of mind prescribed. It is quite its right to say that any will that overlooks the common claims of wife, children, or near relatives, shall be void; but such an oversight need not therefore be set down to the account of any unsoundness of mind or memory. It does say now, in some States, that no will made *in articulo mortis*, or within a given period next preceding death, shall be entirely valid if it gives to charities, or out of the family, more than one-third or some other reasonable portion of the estate: it is a void will as to that particular devise or bequest; but this cannot be for unsoundness of mind, as that would taint the whole will, which is not the purpose of the law; but the purpose is to prevent a wrong to the family of the testator, and counteract the influence of superstitious

or perverted feelings over him, at a moment when his faculties may be fluttered by apprehensions, or when he may be overpowered by vexing and pertinacious solicitations. It provides that a will, however sane a man may be, which is extorted from him, or which he is cheated into, or which he makes when drowned in his cups, and his memory is a "fume," as Macbeth expresses it, shall be deemed no will; that it shall not be valid, if it makes no provision whatever for his wife and children, unless they be otherwise sufficiently provided for; and all this, without any necessary impeachment of the testator's sanity. It is evident from the adjudged cases, that the struggle of the law is to thwart, on every possible ground, every testamentary disposition of property that unnaturally disregards the common claims of kindred; and, at the same time, to tolerate and sustain every free disposition of it that does not wholly evade those claims. The least decent acknowledgment of them preserves the vitality of a will that is otherwise sound; and if the testator have no such claimants on his good remembrance, an endowment for favorite horses, dogs, and cats, or for a hospital at Joppa or Jericho, or for almost any other odd purpose under the sun, (if not too much under the moon,) will not of itself impeach his testament as for unsoundness of disposing power.

The general right to make a will being conceded as a social necessity or convenience, most of the practical legal questions touching the validity of wills, aside from mere questions of form and technicality, respect the real soundness of the *mind and memory* of the testator. The cases embrace almost all the infinite vagaries of the human mind, ranging from the weakest imbecility to the most errant and extravagant fancies; and hardly one of them, from the simplest to the most complex, has escaped some sort of judicial criticism and settlement.

Of course it is impossible that any inflexible rule or statute should be at once comprehensive and minute enough to meet all the equities of such a variety of cases, depending upon a just insight into the actual capacity and motives of ever-versatile human minds. They are better capable of being fairly settled, individually, as they arise. Some equitable and adjustable process is more likely to hit the truth of each case than any general constricted formula. It is doubtless a good general rule, and it is therefore a rule of positive law in most countries, that a man of unsound mind and memory is incapable of making a will. But the same positive law does not venture any farther with its absoluteness, perceiving the invincible difficulty of defining its terms; and the judicial tribunals are wisely left to construe, adapt, and apply it. The common law is more elastic for this purpose than any statute; and its adjudications, although often enough conflicting, are on the whole more satisfactory in the particular cases, than the Procrustean rule of a legislative act. The one considers each case by itself, and under its own distinctive lights and shadows; the other strikes a particular level, above and below which there are many cases that must be unceremoniously and arbitrarily gauged to the standard. The vagueness of the term "unsoundness of mind and memory" leaves room for impeaching almost every testament made during sickness or weakness; and exposes the decision, in consequence of the uncertainty of the standard, to everlasting doubt as to its exact or even approximate justice. This is an inevitable infirmity of all human tribunals.

There are some hesitating and uncertain minds, wavering, as an apostle says, like a wave of the sea, that really never exactly know what their will is; and, after a formal testament is made, are by no means so satisfied

that it is their real will, that they are quite willing that death should irrevocably seal it: it is difficult to say of them that they ever had a positive decided will of their own. Yet the usual formalities suffice to make the testaments of such persons valid: legal unsoundness of mind cannot be predicated of them. Others there are whose will is determined enough, and evident enough; but it is so perverse and unpliable, that whatever it has fixed upon cannot be swayed to any measure or terms of moderation, or what is commonly called reason: the mind so runs upon one purpose of partiality or prejudice, without any fair doubt of the mental power, or of the disposing mind and memory, that its will must stand for the law of that case, however unjust, and, to the common sense and feeling of men, however unreasonable.

So that the testaments of some sane men, as full of absurdity, and eccentricity, and unjust feeling as the testaments of some insane men, are legally valid, while the others are invalid: nay, the sanest wills of insane men stand no sort of chance with the insanest wills of sane men. It is one of those anomalies that betray the incompetency of human jurisprudence.

But although a broad rule of law may be a good and safe general maxim, and yet fail to meet all the cases within its sweep, thereby showing its practical deficiency; yet a principle of equity is allowed to step in and rescue strongly exceptional cases from the rule. Such is the case with wills; which, as to whatever touches the pith of them, (the intent of the testator,) and not the mere formalities of execution and publication, which equity does not presume to meddle with, are saved from the grasp of a vague general provision by the construing and adapting powers of judicial tribunals; which convert into a graduated scale of Vernier minute-

ness what was designed to measure only in the gross of significant dimensions, without regard to the more or less of fractional parts. The law bravely disregards mere littleness: *de minimis non curat.* But equity condescends to minuteness for the purpose of getting at a man's intent and meaning in his particular act. Although equity has been usually regarded as a sort of distinct and side tribunal, complementary to the common law, yet the common law itself may claim for its chief merit both an expansible and a contractile power according to times and exigencies, adapting the spirit of a principle to the necessities of a case, without sacrificing the principle itself—a power which has in it the very germ of strict right and good conscience. Perhaps in nothing is this more observable than in the inforcing or the invalidating of wills. Each case of a will, is like each case of insanity, *sui generis.* There seems to have grown up a sort of concurrent jurisdiction, or, at least, a correspondence of purpose, in the various courts, to make wills efficient to the closest verge of palpable inefficiency; to infuse into early youth and preserve to the latest old age, the testamentary capacity and vigor, and to maintain it against all shadows and suspicions. By the common law, and under some of our statutes, infancy may make a good will long before it may make a good contract; and old age may do so after it becomes questionable whether its contract would be any longer valid. Until thirty years ago, in England, a boy of fourteen and girl of twelve, might make a good will of personal estate; and a boy of eighteen and a girl of sixteen may still do so in the State of New York. Thus the testamentary capacity is of earlier maturity and of later decay than perhaps any other recognized legal faculty. The reason is, that a simple exercise of the will—the act of a single mind—requires less force and

activity of the disposing power than the complexity of a bargain, where two or more minds must encounter, discuss, and conclude. The one implies a state of mental repose, conducive to clearness of the faculties; the other, a state of mental conflict, conducive to excitement and doubt.

The usual coupling of the *memory* with the *mind* in the law phrase defining the disposing power necessary to give life to a will, is a somewhat striking and pregnant pleonasm, as if to give prominence to the memory as the distinctive faculty of the mind most necessary to the exercise of the power. It singles that out from the other faculties, as if human experience had shown that of all the mental traits the memory was the most significant, as well as the most uncertain, and therefore the most to be suspected and criticized. Macbeth calls it "that warder of the brain;" yet it often slumbers on the watch; and as a physiological truth, it is the first of the faculties to stagger and decay, without sensibly disturbing the equilibrium of the mind; while, when that is most disturbed, as by insanity, the memory is often the most active, the striking exception being in the case of *Dementia*. It is liable to various tricks and failings that are troublesome and perplexing, but many of which do not vitally touch the disposing capacity. If we say, in an absolute unlimited way, that a defective or "unsound" memory shall disqualify, we disqualify many men who, notwithstanding, are by daily acknowledgment, abundantly competent for all the common purposes of life and business. A man, for instance, may not be able to recall the name of his son Dick, when he wants to remember him in his will, but may still have a perfect recollection of his person and identity—may have his true image in his mind and memory—and be just as sure that it is that particular son he means to give

his property to, as if no word but Dick were at his tongue's end. His intent is obvious enough, and any suggestive bystander can prompt the name, which he at once recognizes and pronounces, with a muttered anathema upon his own stupidity; and straightway forgets again. Dr. Johnson in his infantile petticoats could learn a collect in the prayer book before his mother could get up two flights of stairs; and yet he could, on occasion, forget the word "*fugaces*" in the familiar ode "*Posthume.*" This he called a "strange trick" of the memory; but it seems to be a favorite one. So a man may, with great vividness, recall particular scenes and events, and be utterly unable to recall dates and names coupled with them. So, one's memory may be perfectly unimpeachable, nay, particularly strong, on a favorite class of topics, and quite confused and at large on some or perhaps all others. It is a common accompaniment of senility that the memory of early and old events is bright and unequivocal, while that of nearer and fresher ones is indistinct or obliterated. In our presence, as we write, is a gentlemen of seventy-six transacting his daily business with accuracy, whose competency to make a valid will no one would doubt; who forgets or confuses ordinary events of the day or the week before; and who daily asks some question which he asked yesterday, without being conscious of the repetition, until the answer arouses him to a mortifying recollection of it; and yet an event of ten years or forty years since is clear in his remembrance. He could, doubtless at this moment, without book or reference, specify the principal items of his estate, and dictate the disposition of it, with as much promptness and decision as he makes his entries in his ledger. An old poet says,

——— "none grow so old
"Not to remember where they hid their gold;"

which means that in matters of property and estate, the memory is long-lived and tenacious, and not so often impeachable as dissatisfied heirs and expectants would have us believe. Montaigne, with all his fertility of quotation, indicating at least a good memory of *ideas*, could not call his servants by their *names*, and says that he "has no memory at all;" which means no more, perhaps, than that he had so little that it took him "three hours to commit three verses;" it was of the slow, and not quite the sure sort. Waller often forgot his accustomed "grace," and even the Lord's prayer. Boswell tells Johnson of a worthy gentleman who forgot his own name; which, (surmising that it was his own father,) was not very remarkable, inasmuch as it was written "Auchinleck" and pronounced "Affleck," and might confuse a pretty strong memory; although Dr. Johnson thought it was a case of "morbid oblivion." But he also thought it was incredible that a man's mind should be weak at seventy, probably because he did not perceive any waning of his own. We have lately heard of a gentleman, a professor in a college, whom no one would suspect of "unsoundness" or "morbid oblivion," who going to the post office for his mail, when he got there, could not, with all his fingering of his forehead, give his name, and finally turned away in desperation to pick it up, by some chance, outside. Near the street door a gentleman met and saluted him by his *name*, and was surprised that he got no other acknowledgment than a hearty "thank you—thank you," when his friend rushed rejoicing to the post-office box with his recovered cognomen, fearing it might wriggle out of his head again before he could bait with it for his letters. This reminds one of Newton viewing the remains of his chicken, which some kind friend had taken the liberty to pick clean while he was solving some intricate problem,

(leaving what Berkeley might not have unaptly called "the ghost of a departed quantity,") and gravely exclaiming, "I thought I had not dined, but I find I was mistaken." These cases of absence of mind, or abstraction, are often confounded with positive defects of memory, especially when they arise from a torpidity or sluggishness of the brain that often accompanies a state of weakness or ill-health. Many a man never forgets a face, who often forgets the name that belongs to it. Cases might be abundantly accumulated to show how uncertain and vague the term "unsoundness of memory" is to measure the competency of men in their other faculties. Few memories after middle life are without a flaw; and the precise disqualifying grade of "unsoundness," is too variable for the just application of any general rule.

We once knew, attending an academy, a pupil of thirty years or more, whose advancement was far short of his age and his early opportunities. His story was that, during his boyhood, when fairly forward in his studies, he had a fit, or a succession of fits, on recovering from which his memory was a perfect blank. He did not know the alphabet, and had to commence anew, at the very foot of the hill of science, and recover all his steps. A time came in his new progress when a portion of his old attainments flashed back upon him, and gave him a sudden lift. He was perhaps never of a strong mind; but when we knew him, a senior among juniors as regarded years, but a junior of the juniors as regarded school knowledge, he had a most wonderful memory, especially for numbers and for historical events. He would rattle off the whole course of American history and of Napoleon's campaigns, then fresh, giving days, years, events, and names with amazing readiness and the most positive certainty. He took part in the debates

of a club, with some diffidence and hesitancy of speech, and was the infallible historical reference and index. He would repeat, with unerring correctness, fifteen or twenty of the most uncouth and unrecognizable words and names, on the bare sight of them, glancing over the list, turning the paper, and reciting his lesson as if it were a well conned page of the spelling book. Some years after, we met him as a teacher of a village school, where he was a favorite with his pupils, and gave satisfaction to their guardians. He was a simple man, somewhat short-witted, and somewhat eccentric, credulous, of mild and pliant temper, and showing evidently enough, by his inconsecutiveness of talk, some shattering of his faculties; but as for his memory, in the respects we have noted, it tended to a painful excess; a defect by way of superfluity, rather than of lack. Is such a man of sound mind and memory in law? We have read of a person who, after an attack of fever, permanently lost the knowledge of one of the letters of the alphabet. How far should that impeach the soundness of his memory for the making of a will? Respecting the seeming prostration of the faculties by a general paralysis, we know of a case of twenty years standing, of a young man struck down to such a complete weakness that he had no power left to express a want except the motion of one eyelid, and so remained in a state of apparent idiocy or complete imbecility for a considerable period; afterwards very gradually recovering his physical power, as shown first by a nod, then by a raised finger, then by a movement of a hand, and then by an imperfect tongue; and what was more surprising, he afterwards assured us that during all this hopeless state of helplessness, his mind was undisturbed and as clear as ever; that, with a physical power of expressing himself, he could have dictated a letter of business, or directed the management

of an affair, with the same readiness and intelligence that he ever could; that he had heard and observed all that was passing around him, and was conscious of the misapprehensions and blunders into which his physicians and nurses were deceived, and could have corrected much that was amiss in the management of his case. For aught that appears in his conversation and letters, (for although blindness has added its cloud, he still writes letters very intelligibly by mechanical aid,) his mind has maintained its natural vigor amid shocks that seemed at times to have prostrated every thing but mere vitality; and with the exception of one distressing and protracted turn of unremitting neuralgic pain in the head, when he would have welcomed death as a relief, he has been constantly cheerful and animated. Of course, during the period of his extreme prostration he could not have made a will, because he could not command any means of communicating and verifying it; but the incapacity was not of mind and memory—it was merely physical—a want of the power of signifying his will. When he had so far improved that he could nod assent, or communicate his wishes by pointing out letters with a pencil in his lips and thus laboriously spelling out words, and could perhaps attest a will by making his mark; although his mind and memory were abundant for a testamentary act, yet the legality of it, performed under such questionable conditions, would probably be contested. A man so wrecked is very apt to be considered as *incapax*, when, in truth, his wits may be brighter than ever, and his observing and reflecting powers sharpened to a keener edge, and concentrated, by seclusion and self-dependence, into unwonted strength. Such instances show that no common rule is equitable: each case must stand by itself, and be judged by its own characteristics.

Many men who are not insane have a defective, a weak, or a confused memory. It is a point to be considered with reference to their capacity for doing or directing some particular thing, or for performing satisfactorily the duties of certain stations in private or public life. One may have wit and memory enough to bestow all his property on a grateful and kind daughter, cutting off an unfilial and reprobate son, without having sufficient of either of those qualities to enable him to comprehend a testament stuffed with devises over, contingent remainders, provisions to meet the possibility of issue extinct, and all the ingenious cobwebs of a lawyer's brain that some sane men put their hands and seals to as if they understood exactly what they were about; mainly trusting to the intelligence and good faith of their counsel, rather than to their own wits. Indeed, some wills of lawyers have not stood the test of a legal construction, verifying the adage that "whoso is his own counsel hath a fool for his client." So an imbecile mind may be too narrow to understand the nature and drift of some complex transaction, but can fully comprehend and direct a simple one. So many shrewd men may be puzzled to appreciate the relative values of property, considering the uncertainty of mediums of exchange and the fluctuations of value, and make their wills with a wonderful miscalculation of results: indeed, one who has been accustomed all his life to gauge values by a silver dollar, may, without any imputation of unsoundness, be excusable for some inability to gauge them by a greenback, and go marvellously wide of the prospective worth of a favorite corner lot, set aside for the rich provision of a minor child. To put such incompetencies and misjudgments as these on a footing with insanity, and allow them to invalidate wills, seems to be an unnecessary proposed innovation,

and an unreasonable slur upon the testamentary capacity. Such are cases for courts and juries to judge of as they arise; and if such circumstances are really of force to impeach wills, let it be an inherent force of their own, like that of fraud or undue influence, and not borrowed from a source of incapacity to which they are in no wise attributable, to wit, insanity; which has enough of its direct offspring to cover, without sparing a corner of its cloak to shelter all its putative cousins, or more distant and questionable relations. This is an error of some who urge general legislation on the subject of wills, making certain *indicia* positive disqualifications, as of the nature of insanity. Perhaps a wiser step of general legislation, and more to the root of the matter, would be to cut off and extirpate all testamentary power, except that of mere guardianship, and leave all estates to follow the laws of intestacy, as the most conformable to the innate sense of natural right. It would compel beneficence to do its good deeds in its life time; save a world of vexation, family discords, and litigiousness; and hasten the millenium by a thousand years to all the world but lawyers. Besides, if no wills could be made, and all were compelled to die intestate, it would do away with a certain superstitious apprehension of death that is associated with last wills, and take the sting out of Lord Bacon's shrewd inference, "I gather that death is disagreeable to most citizens, because they commonly die intestate, this being a rule, that when their will is made, they think themselves nearer a grave than before."

Insanity seems to be regarded in two different lights by the law, as it is viewed from the criminal and the civil side. It is broad for a shelter against criminal charges, and narrow to cover evasions or breaches of the usual responsibilities of civil life. The thinnest cloud

of unsoundness will sometimes obscure a criminal intent; but it may not cast the lightest shadow upon the ordinary transactions of business, not even upon the disposing capacity of a testator, unless his will be unusually odd or malevolent. Nor is it a distinction without a difference, psychologically, as well as legally. The same mind may, in a state of repose, quietly order the daily routine of affairs, and consider sensibly of the disposition of property, that will be put beside itself and lashed to frenzy by some inauspicious provocation or disturbance. Its equanimity is perfect in a calm, but wholly wrecked by a tempest, which is the only real test of it as a virtue of any particular value.

> "*Rebus angustis, animosus atque*
> *Fortis appare,*"

is the rule of an even mind. The ordinary business of life is not conducted in a whirl of excitement; but crimes, and insanity too, are often the offspring of it. Thus for invalidating a testament, which is usually the long-cogitated and composed act of a thoughtful man, a greater suspicion or proof of unsoundness is commonly requisite than for shielding against punishable offences. Even a man under actual guardianship, as one of discomposed mind, may make, in a clear, lucid interval, a valid will; the guardianship only serving to change the burthen of the proof from one side to the other. A lucid interval restores a man to his rights of sanity, and needs only to be proved when it cannot technically be presumed. If in a fit of passion, or of sourness and impatience, a man makes an absurd will, which in a better mood he would readily cancel, yet the law, on existing general principles, would uphold it; for it is not its province, nor is it within its power, to regulate men's tempers, their partialities, or their prejudices, or

the unbecoming or spiteful displays of them, if they be short of criminal. Yet it goes farther, perhaps, in the assumption of such a power in the matter of construing wills, so as to make them conformable to equity and good conscience, and to give effect to what might be presumed to be a reasonable intent of a testator, than in any other attempt to exercise it. It so construes inconsistent, or conflicting, or dubious clauses of such instruments, as to make effective some obvious, or natural, or seeming, or reasonable intent of a testator, without presuming to make his will for him, or to go directly in the teeth of its positive provisions; which, if they are intolerably bad, it will rather stretch its conscience to set them aside entirely, on any sufficient show of imbecility, or fraud, or undue influence, or delusion, or some constructive or inferential unsoundness of mind and memory. The adjudged cases sufficiently show this tendency, although it may be rather lurking than avowed.

It has been made a question how far a will executed in a conceded lucid interval, when the faculties have, for the time being, apparently resumed their original brightness, is tainted by a chronic or recurring state of unsoundness of the mental condition of a testator. The writ *de lunatico* was always careful to require an inquisition to be made as to the lucid intervals of an alleged lunatic; because lucid intervals restored him to all the rights of sanity and covered his lawful acts: at the same time, they made him amenable to responsibility for those which were unlawful. But such writs were usually resorted to for protecting a man in regard to his property, and his civil rights and obligations, against his own mismanagement or incompetency, and not in regard to any criminal violations of duty. The purpose was to place him under legal guardianship, that no

advantage might be taken of his wretched weakness; not that he should be restrained of his liberty of person, or of action, during any intervals of his restored strength of mind. It was considered that a man's faculties might brighten as sharply out of the obscurity of insanity, as the moon suddenly casts a pure glance out of the broken nebulæ of a ruffled sky. There is no doubt of the transitory reality and clearness of either; but as the moonbeam might disappear in a passing occultation of a cloud, so might the lucid interval in a returning confusion and shadow of the mind. A will made in such an interval, of sufficient duration to test its reality, should, on general principles, be as valid, as one made in a temporary cloud of insanity should be invalid. Martin Luther had his clouds, so had Cowper his, and Mary Lamb hers; but the long intervals of brightness were of a transcendent character in all; of unequal continuance, indeed, but of unequivocal reality. Still, it is a nice psychological question, and Lord Brougham made it a legal one, whether a mind once tainted does ever positively recover its normal strength and health; whether there must not always remain such a real or presumptive suspicion of unsoundness, as to make it unsafe for the law to pronounce an absolute lucidness, and act upon that assumption. The law, however, practically answers the point, by measuring a man's capacity, not absolutely, but relatively; it inquires as to its sufficiency for any particular questioned act, and resorts to all tests, general and special, that may shed light upon it; and is content if it be the act of a mind competent to do it, whatever its incompetency to do other acts. A man may make a will, but may not be quite equal to making a bargain. He may intelligently do acts, after a long accustomed mode, and in a familiar routine of duty, which another man, of greater general intelligence and power of mind,

might not do half so well, nor with equal judgment. Newton, with all his science, could not tell when a shower was pending, as well as the shepherd's boy, who saw the sure sign of it in the wagging of the black ram's tail; and trusting to his science, rather than to the boy's observation, and the ram's instinct, was deservedly ducked, in the boy's estimation, for lacking common sense about common things. A jury of shepherds would probably have pronounced against his capacity to make a will; as a jury of farmers lately disagreed about the wits of an octogenary neighbor, because he allowed a buckwheat field to grow up to an incipient pine forest of great prospective value, contrary to the current practice of good husbandry in that neighborhood; and sacrificed the present enjoyment of morning pancakes, to gratify the third and fourth generation with the rich results of a spontaneous growth of logs worth fifty or sixty dollars a thousand feet of board-measure.

On the whole, we are inclined to the opinion, that any attempt to define, with a pretence to psychological precision, the tokens or circumstances which ought absolutely to govern the adjudication of the validity of last wills, in respect of mental capacity, will fail of its purpose. A few approximate general principles must suffice for common application. In criminal cases, involving questions of insanity, the firmest and strictest definition is the best, although dogmatic, because it is the most merciful; in civil and equitable cases, much must be left, somewhat loosely, to judicial discretion, and the force of concurring precedents. That degree of unsoundness of mind which incapacitates a particular person under particular circumstances, does not necessarily incapacitate every other person under the same seeming circumstances. It is a question of fact which should be left, in all disputed cases, to a jury of the

vicinage, who although they are liable to be swayed, as perhaps they ought, by the prevailing sense and judgment of the community which is cognizant of the matter, will usually, under suitable judicial instruction, be also swayed to hit near the truth in their verdict. The will of a conceded lunatic may, in itself, betray no mark of the unsoundness of the mind that dictated it; for lunatics are not necessarily lunatic at all points; and the consideration of a grave purpose may concentrate their wandering wits into rationality. Often a sane man may make a will, while in a temporary haze, which does not affect his general capacity, and which only dims his mind on some subject that has nothing whatever to do with what he is about. Such a haze might properly enough shelter him if he were charged with a crime about which it had confused him; but his civil acts are not compromised by it, unless they are obviously done under its shadow. Respecting the question of undue influence, it is not always, or of consequence, connected with legal unsoundness of mind and memory. Nor does mere weakness of intellect incapacitate; and yet weak intellects, far enough from proper insanity, are liable to be touched by superstition and by sinister influences; as conceded strong intellects often are by exalted notions and ambitous imaginations. A perfectly sane man may, from a desire for posthumous distinction, or for ostentatious liberality, or for simply preserving his name and memory, or possibly to soothe a gnawing conscience, dispose of a large estate in the founding and endowing of charities, to the distress or destitution of a family that naturally has superior claims; and yet such a disposition would not be impeachable as an act performed under undue influence. There are many cases of notoriously unjust and improvident present dispositions of property made by living men, by way of gift and lavish-

ness, which the law does not pretend to supervise or regulate; then why should we expect to supervise or regulate the like testamentary disposition of it? We may say of a man, as we often do, that he is wasting his means, like a madman or a fool, in gaming or riotous living, or even in famous charities, that impoverish him; but we cannot restrain him, without a presumptuous interference with his liberty of action: then why should we expect to follow him beyond the grave, and criticize his posthumous squanderings and charities? Many a man is impeached of fatuity or undue influence, after his death, upon the mere footing of his last will; whom, living, no one would venture to impeach for any action of his life. But when the soul that animates the unfortunate testament no longer animates the body of the testator, it is also no more respected or considered than the poor remains it once vivified; but is straightway assailed, impeached, doubted, scandalized, and insulted, as having lacked, in the most solemn act of life, all the discretion, affection, good judgment, foresight, and other commendable qualities, that once adorned the conduct, and are probably now blazoned on the monument, of the weak and deluded man who turned up a dark and unknown side of his character when he made such a will; disappointing so many expectants; and compelling, perhaps, his own offspring to depend, as better than all inheritance, on their industry and resources, as he himself had depended on his.

Last wills have been a prolific cause of imputed insanity. Many excellent people have gone with tainted memories among their posterity, on account of the most deliberate and conscientious act of their lives; who, if they had had the supreme wisdom to die intestate, might have slept quietly in their graves, without ungrateful reminiscences. "Unsound minds and memories"

have come to light on the reading of a testament, that were never suspected to exist before; and rarely has a large estate been bequeathed or devised, without arousing a doubt that the unfortunate deceased possessor of it, must, at one time or another, especially when he was acting in the presence of chosen witnesses, and making a solemn declaration of his final purposes, have been beside himself, or unduly influenced by some sinister relative or friend. It is a melancholy and humiliating reflection on which to pause and ponder.

A LECTURE ON GASTRIC EPILEPSY.

DELIVERED AT ADDENBROOKE'S HOSPITAL, CAMBRIDGE, BY G. E. PAGET, M. D., PHYSICIAN TO THE HOSPITAL.

From the *London Lancet* for July, 1868.

One of you asked me a few days ago whether the case of the older of those epileptic girls in Hatton ward (I mean Sarah H——) were a case of *gastric* epilepsy. It was a good practical question; it went at once to the most important point, that of treatment. The choice of treatment for the patient depends on our answer to that question. I will therefore take it as my text for saying something on the treatment of such cases, and on the general principles on which epilepsy should be treated.

There is one fact which you must never lose sight of in considering the treatment of epileptics—the fact that though they resemble one another in being subject to the like fits, they may differ widely from one another in other respects, and that this difference must be taken into account in devising the treatment.

The questions have at times been discussed, whether epilepsy be a sthenic disease or one of debility—whether it is associated with cerebral plethora or the reverse. In such discussions I should take neither side, because I am sure that I have seen some epileptics plethoric and others deficient in blood; I have seen some vigorous, athletic; others as remarkable for their weakliness. If you treat your epileptic patients indiscriminately with metallic tonics, you will find that some of them are benefited, and others made worse. In the present day venesection is scarcely ever employed in the treatment of epilepsy, but if you refer to the work on Nervous Diseases, by the late Dr. Prichard, you will find indisputable evidence of benefit derived from it. He treated many of his epileptic patients with repeated large bleedings, and under this treatment the fits in some of them became less and less frequent, and in a few cases seemed to cease altogether. A case from Portal will illustrate the same fact. An epileptic in one of his fits fell violently on his face, and caused so frightful a hemorrhage from the nose that it was thought he would die from loss of blood. Before this he had had a fit once a month, or oftener. After it, he remained free from them for several months. The surgeon who attended him took this as a hint, and bled his patient at first once a month, afterwards at intervals of three or six months, and then more rarely, and continued this treatment for a long time. The fits never returned.

You will understand that I do not wish to encourage you to treat epilepsy by venesection; I only desire to show that a mode of treatment which has been wellnigh exploded as a remedy for epilepsy has (there is strong reason for believing) proved truly remedial in *some* cases. I could give you further evidence from one or two that have fallen under my own observation, but

they would be less striking than Portal's. Such cases are of course quite exceptional.

If you aim at curing epileptics, you must be at the pains to study each case individually. And you need not be surprised at this. Epilepsy is not the only disorder of the nervous system which is associated with different conditions of the rest of the body, or even with different conditions of the vascular system of the brain. You all know that delirium may occur in what appear to be different, or even opposite, conditions. It may be excited by alcohol, and may occur in a state so different as to be arrested by alcohol. Take another more definite example of nervous disorder—the phenomenon of optical illusions. This is in some cases associated with plethora, and even seems to be caused by it, for it is relieved by venesection: but in other cases it is no less certainly associated with a deficient supply of blood to the brain, for it has occurred in fainting and in the weakness of old age. It may occur also in blood-poisoning, as in fevers and uræmia and under the influence of opium or Indian hemp.

So with epilepsy: it may occur in very different conditions, and therefore require very different kinds of treatment. You will understand that I am not now speaking of the essential pathological condition of epileptic fits, of which we know so little, but of the general conditions which are practically cognizable.

You may ask, "If the treatment should be so different in different cases, can you give us no general rules for our guidance?" My answer would be, I can give you no *one* method of treating epilepsy, but some general principles may be laid down, and these we can gather from a consideration of its causes. Our knowledge of its causes is indeed limited, but whatever obscurity there may be about its *proximate* cause, we do possess some trustworthy evidence as to its remote causes.

One of these is a constitutional state, which predisposes to the fits, and may be congenital. It has been called the epileptic diathesis. If you ask me to define more exactly this epileptic diathesis, I must tell you that is more than I can do. Then you may reasonably demand what evidence there is of this constitutional state, of which so little is known that it cannot be defined. Well, there is sufficient evidence in the fact, that two or more cases of epilepsy are sometimes observed in members of the same family, and that this happens far more frequently than it would do as a mere accidental coincidence, and it is observed under circumstances which forbid our attributing it to a common *external* cause. I could give you many instances that have come under my own notice. At the present time two epileptic sisters are among my out-patients; a short time ago there was an epileptic child in Hatton ward, whose mother had been epileptic for some years until the birth of this child, at which time her epileptic attacks ceased; I have a private epileptic patient at this time, whose son died of epilepsy, the disease in the mother not beginning until after the death of the son; I have notes of several examples of epilepsy in brother and sister. Now this predisposition of two persons to a common disease can only arise out of some defects or peculiarities in which they resemble each other; and these points of resemblance, whatever they be, involve the essence of epileptic diathesis. We can only conjecture what this essence may be. As epilepsy is manifested by a disorder of the nervous system, we may reasonably surmise that the diathesis is associated with some abnormity in that system. Many years ago I fancied that it was connected with congenital abnormities in the structure of the brain or its blood vessels; for in several cases of fatal epilepsy I had noticed irregularities in the cerebral arteries or in

parts of the brain itself, but in other cases I have looked in vain for such abnormities. We cannot even be *sure* that the essence of the epileptic diathesis resides in the nervous system; in albuminuria we may have epileptiform fits, and a state of disease which at least resembles genuine epilepsy, yet the essential cause here is in the poisoned blood, and the epilepsy may be cured if we cure the albuminuria. But whatever be the essential nature of the epileptic diathesis, it is certain that there is such a condition, or group of conditions, and that it is one of the efficient causes of epilepsy. Its influenc doubtless varies greatly in different cases.

There is another cause of epilepsy, which is, or at least appears to be, of a different nature. In many cases we may observe the fits to be excited by some local irrita tion. In some cases a local irritation seems the cause both of the origin and continuance of the disease. In one, published by Dr. Greenhow, a girl had run a splinter of wood the distance of an inch underneath her left thumb-nail. Much pain and irritation ensued, and at the end of a week she had an epileptic fit. She had four more fits at irregular intervals in the next four months. The wound remained open, and painful on pressure. The fits were preceded by a sense of numbness in the thumb, rapidly extending up to the shoulder. They were complete epileptic fits: the tongue was usually bitten, and she fell asleep after them. She had not suffered from convulsions while teething, and was not subject to hysteria. Dr. Greenhow ordered the thumb to be poulticed; and for medicine gave solution of perchloride of mercury and tincture of cinchona, of each one drachm and a half thrice daily. Nine days afterwards a sixth fit occurred. The wound was now healing, and soon after healed. The sixth fit was the last. Four months afterwards the patient remained well.

The late Dr. Baly published a case of epilepsy occasioned by irritation in the socket of a tooth. The patient was a stout man, aged forty-five. The first symptom of spasm had been twitchings of the cheek, ending in his jaw becoming locked. Subsequently these symptoms were the precursors of a fit of violent epileptic convulsions, the right side (that on which the tooth was affected) being more convulsed than the left. The convulsions always began in the cheek, and extended gradually over other parts of the body. When the jaw and gum were healed the epileptic fits ceased.

Even more striking is a case which occurred to Portal, and is given in his work "On Epilepsy." A man had been wounded in the forepart of the neck and upper part of the chest with small shot discharged from a pistol. Some shot were removed from his neck by slight incisions, and his health remained good for nearly six weeks; after which he had numerous attacks of convulsions, with loss of consciousness. These were continuing many years afterwards, when he consulted Portal. Portal's prescriptions were in vain; but some time afterwards an abscess formed on the side of the neck near the shoulder, and, on its opening, a grain of shot was discharged from it. From that moment the man was free from his epileptic fits.

In a similar case given by Portal the patient was a soldier, and his epileptic fits were preceded by sharp pain in his thigh, where he had once been shot. Lamorier, a surgeon of Montpelier, made an incision into the part, and removed two or three grains of shot, and the patient was thereupon cured.

Cases of this kind are to me so practically significant that I will tell you still another, published by Portal on the authority of Fizes, a professor of Montpelier. A soldier had been subject to epilepsy from the time he

had received a wound from the point of a sword in the corner of his eye. The fits were ushered in with pain in this spot. Fizes directed that a careful examination of the part should be made by a surgeon. On examination a minute spot was found, which was hard and painful; and the surgeon, cutting down into this, removed from it the little point of the sword with which the soldier had been wounded. From that time the man was radically cured.

I have cited these five very similar cases because they indicate so plainly what I wish to impress upon you. In these cases a local irritation was the exciting cause of the epilepsy, and seems even to have been its sole cause. It must, at all events, have been the main cause; for, on its removal, the fits ceased. If there were any other concurring cause, it must have been slight. If these five patients had the epileptic diathesis, they could have had it only in a very low degree; otherwise, the removal of the local irritation could not have accomplished an immediate arrest of the disease. These cases, therefore, teach us that epilepsy may originate in a mere local irritation in some part of the body, and that it may be kept up by the continuance of such irritation. This latter point is of the highest practical importance. It teaches us to search out in every case of epilepsy for evidences of local irritation or disturbance, and thus to discover the exciting cause of the recurrence of the fits. It may or may not have been the *original* cause. The epilepsy may, for example, have been originally caused by fright; but its continuance may be due to some local bodily excitement or disturbance. The local irritation may of course be on the surface of the body, or in an internal organ.

In the treatment of a case of epilepsy it is therefore of the utmost importance to examine into all the func-

tions with the view of discovering whether disorder in any one or more of them be precursory of the fits. If we can discover this, and can succeed in correcting the local disorder, we may stand some chance of preventing the fits. We must not, however, reckon on the good fortune that attended the five cases I have narrated. The local disturbance is more commonly seated in an *internal* organ, and cannot be so completely and finally removed; and even if it be, our patient may have the epileptic diathesis, which acts as a predisposing cause; and if he have not this diathesis congenitally, yet it is a fact unhappily too well established, that, when a person has been for some time epileptic, the fits may be renewed by occasional causes far slighter than that to which they owed their origin. It is well known that such a person may be thrown into a fit by a cause which would not have sufficed to produce any ill effects whatever before he became epileptic.

These immediate occasioning causes, which it is our duty to search for, are by no means always obvious. They may be only slight functional disorders difficult to discover

In no organ is the immediate exciting cause of epileptic fits more frequently found than in the stomach. Indeed, a gastric disorder may even have been the original exciting cause—the cause of the patient's becoming epileptic. This was the case with an hospital patient of mine named George D——. In his early boyhood his head had been injured by the kick of a horse, and he may thus have acquired some predisposition to the disease, but no symptom of it appeared until one day, when he was fifteen years old, he ate an enormous number of cherries, including many of the stones. An epileptic fit was the consequence. Similar fits followed, at first at intervals of a few months, then of one month,

and then more frequently. They were preceded by an aura from epigastre to head. He was extraordinarily athletic, but was obliged to give up his occupation as a whitesmith, and at the age of twenty-four was found drowned in a shallow ditch on Midsummer-common, into which he had fallen doubtless in a fit.

In epilepsy once established, whatever may have been its exciting cause, gastric disorder may in the course of the case, become the ordinary exciting cause of the fits. You may satisfy yourselves of this by watching such cases, and carefully inquiring into the circumstances of each fit as it occurs. You may find, perhaps, (as in George D——'s case,) that an aura passing from the region of the stomach to the head is immediately precursory to the fits; or that there are other symptoms premonitory of a fit, and that these are plainly gastric, and may be relieved by gastric remedies, and that when they are so relieved the threatened fit is averted.

Of course in the great majority of cases there must be some other concurring cause besides the gastric disorder. There may be a congenital epileptic diathesis, or that proneness to fits which seems to be generated by previous attacks. It is certain that in most cases there must be some such predisposing cause, for the gastric disorder which immediately excites the fits may be no more than hundreds of dyspeptic persons are frequently undergoing without falling into fits. But if the predisposition be not strong, we may go a long way towards curing our patient by such watchful attention as to prevent again and again the recurrence of the fits.

In proof of this I can give you many cases in which epileptic patients were greatly benefited, or even permanently cured, by remedying their gastric symptoms, although little besides was done for the correction of a presumed epileptic diathesis.

In August, 1852, I was consulted by Mrs. W——, the wife of a man of business. She complained of epileptic fits, which were noctural, coming on in her sleep. The first had occurred three years before, at a time when she was pregnant with her second child; the next after twenty months, and then they had recurred with increasing frequency, and of late as often as once a month. The last of them had happened a fortnight before I was consulted. All of them had come on about three or four A. M., and all had been severe fits, leaving after them a languor, lassitude and confusion of mind of some days' duration. On particular inquiry I ascertained that the day before each fit she had had some slight disorder of her health, apparently of the stomach. On the last occasion she had experienced a faintness and nausea after breakfast, and had, moreover, dined off salmon and veal. She was in the habit of eating heartily, and of taking a glass of porter at dinner and at supper. With the exceptions mentioned her health seemed good. In her childhood, she had been in the habit of sleep-walking.

I prescribed moderation in eating, and abstinence from all indigestible food and from all fermented liquors. For medicines, I ordered three grains of valerianate of zinc to be taken thrice daily; and a draught of gentian mixture with senna, eleven fluid drachms, and compound tincture of rhubarb, one fluid drachm, to be taken on the occurrence of any of the symptoms which had commonly preceded a fit.

I know not exactly how long the medicine was continued, but the rest of the advice was honestly and persistently followed. The result is, that to this day she has never had another fit, though she has been much tried by domestic misfortunes, including the insanity and death of her husband. This result is the more re-

markable because the sleep-walking in her youth showed a nervous constitution, which is also indicated by the fact that two of her brothers subsequently suffered from delirium tremens, though the habits of one of them were not in a marked degree intemperate.

In 1860 I attended with Mr. Carter a boy, eleven years old, who had had eight fits. The first had occurred when he was two years and a half old; the last, three weeks before I was consulted. On this last occasion he had had two fits within twenty-four hours, and since then he had been restless at night, grinding his teeth, twitching or tossing his arms about, talking in his sleep, or starting up in bed in a state of unconsciousness, with open, set eyes. On one occasion his mind wandered on his awaking. Though of gentle disposition, he had become irritable in temper, yet complained of nothing, and declared himself quite well. He was not aware that he had had fits. There was some little hereditary predisposition, for his maternal grandfather had been epileptic, and had died in a fit. But what was practically of more importance was, that his stomach and bowels had been out of order on the occasions of his fits, and had long been so at the time I was consulted, notwithstanding judicious treatment. He was pale and not robust. His alvine evacuations were almost always unhealthy, and generally contained undigested food. On one day he was seized with twitching of the face just as his bowels were about to be relieved under the influence of an ounce of compound decoction of aloes; and the nocturnal restlessness was more particularly noticed whenever his bowels were confined. They were constantly torpid. To restore their healthy action and correct their secretions, and to enable him to digest his food, cost us some time and no little trouble, but when this was effected the other disorders ceased, and he ap-

peared well. At the end of four months came a relapse. In one night, during sleep, he had two more well-marked epileptic fits. After them he vomited large lumps of beef, undigested and unmasticated, which had been "bolted" at dinner, and lumps also of beef-pudding which had been eaten cold at breakfast, eighteen hours before. The cause of his relapse was so manifest that it served as a warning for unceasing attention to the rules of diet which had been prescribed. Since then—seven years ago—he has had no more fits, has been able to rough it at a public school, and has grown into an active and intelligent young man.

Now what were the remedies in this case? Well, he took very little of reputed remedies for epilepsy. He did indeed for some nights take a quarter of a grain of extract of belladonna, and for some days he tried oxide of zinc, and at another time sulphate of zinc in small doses; but these measures were soon abandoned, because they seemed rather hurtful than beneficial. The medicines that were of service were such as helped to correct the unhealthy state of the alimentary canal—such as would have been used if there had been no epilepsy at all; but still more serviceable, as I think, were, regulation of his diet, the use of an artificial masticator, and much riding exercise on a pony.

Cases more or less resembling this are not uncommon. Here is another. A boy thirteen years old, intelligent, soft-hearted, with pale complexion, large head, and lofty expanded forehead, had been subject for two years to sudden seizures, in which he involuntarily nodded his head twice or thrice, and was for the moment unconscious. These attacks had been regarded by his friends as of too little importance to require medical advice. In April, 1858, he went from home on a visit to some friends who were confectioners. Here he en-

joyed for some days a heterogeneous unwholesome diet, and then one day dined off a pork-pie. After dinner he was leaning forward over a table reading a book, when suddenly he fell to the ground unconscious, in an epileptic fit. I advised great and habitual care in his diet, cold sponging of the head, and a regimen adapted to strengthening his general health. I also prescribed oxide of zinc twice a day, in doses of two grains, afterwards increased to three. Under this treatment the nodding attacks became less frequent, and the more complete fits did not return for more than twelve months. Then he had another epileptic fit, which was attributed to his eating a quantity of unripe fruit, and so served to renew the vigilance of his friends and their attention to his diet. That was in 1859, and was his last fit. He has now for many years been free also from the nodding seizures. The oxide of zinc was given only in 1858, and was not long continued: it probably had little to do with the favorable result.

Notice the nodding attacks in this case. Though little was thought of them, they were assuredly epileptic. The loss of consciousness attending them makes this certain. It is not uncommon for attacks of a slight kind thus to precede by many months, or even some years, the first ordinary violent epileptic fit. You must bear this in mind, and be ready to recognize the true nature of such minor attacks; for the longer their continuance, the more difficult is the cure.

In the following case, also, these minor attacks were a prominent feature:

W. E——, aged fourteen, a sturdy country boy from Little Eversden, was admitted into the hospital on September 4th, 1861. For four months he had been subject to nocturnal attacks, in which he started up in bed, threw his arms about, and struggled in an uncon-

scious state; but, soon recovering his consciousness, lay down and fell asleep again. Recently these attacks had become so frequent that his mother had sat all night at his bedside, and the seizures recurred, she said, every five minutes. Similar seizures occured after his admission into the hospital; but their number rarely exceeded eight in a night. Nearly all of his attacks were of this kind; but there was a wound on the border of his tongue from a bite received in a fit three days before his admission, and when he had been two days in the hospital he had in the day-time an ordinary epileptic fit, in which he frothed at the mouth, and was quite unconscious. He ground his teeth much during sleep; his appetite was keen; his tongue whitish. His mother attributed the recent aggravation of his malady to eating and drinking in the harvest-field. He had passed a few round worms. I regulated his diet, and forbade any eating after 6 P. M. I prescribed, in succession, opium at night, oil of turpentine with castor oil, and compound scammony powder, without benefit. Then I ordered one-fourth to one-third of a grain of extract of belladonna every night, and oxide of zinc in increasing doses, trying these two drugs both separately and simultaneously. Some benefit was perceptible; but it was not lasting.

On the 2nd of January, 1862, I changed his medicine to subnitrate of bismuth and magnesia, of each five grains; acacia powder two grains; to be taken at 4 P. M., and bed-time. The attacks were immediately reduced to two or three per night, and became less violent. On January 24th, I ordered the powder to be given thrice a day. The improvement continued; and on February 11th, for the first time, he passed a night without any attack. He remained wholly free from them until February 22nd, when he was made out-patient, and ordered to continue the powders.

As out-patient he had an attack now and then, but never more than one in a week, and in some weeks none. He went on thus until the next harvest-time, when the seizures again became frequent, recurring twice or thrice every night, and he had also an ordinary epileptic fit in the day-time. He confessed to very free eating and drinking during the harvest. On October 18th, he had again improved, and after that he ceased his attendance, and I lost sight of him.

Bismuth and magnesia have no repute as remedies for epilepsy, yet they were plainly beneficial in this case. Bismuth, indeed, I have often prescribed with advantage in gastric epilepsy. By correcting the disorder of the stomach, it may go far towards relieving the epilepsy. By the use of bismuth with magnesia, as in the case last narrated, I cured a case of severe epilepsy, which during two years had resisted a great variety of treatment, prescribed successfully by two other physicians and myself. I failed to recognise its gastric character until I learned that the patient (a robust agricultural laborer) almost every day hiccoughed twice or thrice about two hours after his dinner. This case was in other respects so remarkable that I was induced to publish it. Besides his regular epileptic fits, which were numerous and of the most severe kind, and even nearly fatal, the patient was troubled with sudden and transient attacks of involuntary and meaningless laughter, associated with no ludicrous ideas, and occurring frequently by night as well as by day, in sleep as well as awake. He was ultimately cured by bismuth and magnesia, and after a period of seven years he is still remaining quite well.

The cases I have related are, I think, sufficient evidence not only that in certain cases of epilepsy the immediate exciting cause of the fits is in the stomach, but

that in some a cure can be effected by correcting the gastric disorder. This is what I wish you to bear well in mind. But I must not end here. If I did, I should leave a wrong impression on your minds. You cannot cure all cases of gastric epilepsy as these were cured. I have not given them to you as models of judicious treatment; far from it. You will meet with many cases in which such treatment will be found inadequate. The cases I have narrated prove the importance of treating the gastric symptoms when there are reasons for believing that the immediately exciting cause of the fits is in the stomach, but you must not expect that in all such cases this treatment alone will suffice to effect a cure.

In very many cases we have to take into account an epileptic diathesis, either congenital or acquired, in consequence of which the fits will recur, notwithstanding all our care in correcting the local exciting cause. We have then the additional task of removing or correcting this diathesis—this diathesis of the nature of which we know so little, of which we do not even know whether it be one state only, or whether, in our ignorance, we do not include under this one term several distinct and dissimilar states. How can we do this? No reasoning can help us here. Nevertheless, we are not entirely at a loss. Direct experience has taught us that certain drugs and certain kinds of regimen have some control over those states of the nervous system which predispose to epileptic fits. Oxide and valerianate of zinc have such power, and so have belladonna and bromide of potassium. These certainly exert an influence over epilepsy, an influence which we cannot doubt, though we know not their *modus operandi*. Direct experience has again and again proved their power when suitably used, not only in epilepsy, but in other affections of the nervous system.

In most cases of epilepsy we must direct our treatment to *two* ends—to remove the local irritation, and to correct the epileptic diathesis.

A man named William M———, is now attending as out-patient, whom I have treated thus, and his case illustrates my remarks the more aptly because I have kept the two kinds of remedies distinct, having deferred the second until the first had accomplished its purpose. He is the son of a widow, living at Barton, and was sixteen years of age when admitted as an out-patient, in April, 1864. When well he worked as an agricultural laborer. He had been subject to epileptic fits for eight years, and had the stupid, half-imbecile look so frequently seen in epileptics, when, in an unfavorable progress of the disease, the brain has suffered much. His fits had generally recurred about twice a week; their epileptic character was well marked, and they were followed by deep sleep. He was in the habit of eating very heartily and fast, swallowing large mouthfuls, with very little mastication. There was evidence of some hereditary predisposition. I advised him to eat slowly and moderately; and for medicine, I prescribed three grains of subnitrate of bismuth and a sufficient quantity of extract of anthemis, to be taken in a pill thrice a day. This was continued till the end of the year, the fits becoming less frequent, and his stupid look gradually improving into one of ordinary intelligence. At the beginning of 1865 the fits did not recur more frequently than once in a fortnight. On January 21st the dose of subnitrate of bismuth was increased to five grains, and on June 10th two grains and a half of magnesia were added to the bismuth. This last change does not seem to have been beneficial. On July 18th the medicine was changed to ten grains of bromide of potassium in camphor water twice daily. On Septem-

ber 16th the dose of the bromide was increased to fifteen grains, and on February 17th, 1866, to twenty grains. Until this last date the fits had continued to recur about once a fortnight, but were generally attributable to some infraction of the rules I had laid down for his diet. In one of these fits he fell into a fossil-pit, and received a severe hurt. Since the last increase in the dose of the bromide he has had only two fits, the last of which was in November, 1866. From that time to the present he has been wholly free from fits. He has become very robust, has good average intelligence, earns good wages in the laborious and constant work of fossil-digging, and supports his widowed mother. He is carefully moderate in eating, and takes no strong drink, except a very little beer.

In many cases the phenomena are more complicated than in those I have related, and if they be, our treatment must be adapted accordingly. The gastric symptoms may be the chief, but not the only symptoms to be considered in planning our treatment.

J. E———, aged eight years, son of a butcher at Ely, was admitted as an out-patient of our hospital, on July 21st, 1855. He was well and sturdily built, but his head was rather large and his brows heavy. For the last five years he had been subject to fits, which had become more frequent of late. Sometimes more than one occurred in a week; the longest period of immunity had been three months. All the fits had been nocturnal, coming on in his sleep, generally about ten minutes after he had fallen into his first sleep; and were attended with complete insensibility, convulsions, lividity of face, frothing at the mouth, and biting of the tongue. After them he was very dull for a day or two, scarcely speaking. He had almost constant headache. His appetite was very hearty, but he took no supper. His

tongue was furred at its base, his pulse regular, and no worms had been seen in his evacuations. He passed five hours and a half every day in school. He was ordered to discontinue the afternoon school, to eat less, to have cold water applied to his head thrice daily, and every night to have a hot foot-bath and to take ten minims of tincture of digitalis; also to have an issue in his arm, and to take a dose of castor oil once a week. Under this treatment he remained free from fits until September 20th, when they returned. Two days afterwards he was admitted in-patient. While in the hospital he had repeated attacks of herpes labialis. He had a propensity to eat fast and largely. In November his nose bled on two consecutive days. I allowed him meat only thrice a week; on the other days he had pudding for dinner. He took occasional doses of magnesia with rhubarb; the hot foot-bath and digitalis were continued, and the issue kept open. The habit of eating fast was gradually corrected by the vigilance of the nurse. He was troubled with twitching and cramps, but remained free from fits, and on February 19th was discharged, with a caution to his friends to keep open the issue for a while, and continue the same plan of diet and regimen. Three years afterwards I heard that he had remained wholly free from the fits, and was perfectly well and strong.

In this case gastric disorder seems at least to have been one of the chief causes of the fits, and a regulation of the diet one of the chief remedies; but some of the symptoms indicate congestion of the head, and the employment of an issue in the arm leaves in doubt how much of the success was due to diet and regimen, and how much to the issue. We must sometimes be content to be thus left in doubt as to the relative value of the means we have used successfully. It is our first duty

to cure our patients; and we have no right to refrain from the employment of remedies that are likely to aid them, though the simultaneous use of more remedies than one does inconveniently complicate our reasoning on the case.

The case of Sarah H——, which gave the hint to my lecture, is, however, not what I should call gastric epilepsy. It is, indeed, genuine epilepsy—some of the fits have come on in sleep, and the tongue has been bitten—and she has some well-marked gastric symptoms; but these do not seem to be exciting causes of the fits. She suffers much from pain in the stomach; but this occurs very frequently without being followed by any epileptic symptom. She tells us that her first fit, (which occurred eleven years ago,) and also some of the subsequent fits, came on at, or just after, her dinner; but most of her fits have occurred at other and various times without any apparent connection with her meals. There is no epileptic aura proceeding from her epigastrium, or other stomach symptom precursory or premonitory of her seizures. Therefore, although she has been benefited by the treatment, having been free from fits for more than six months, I think it at least doubtful whether this benefit had been derived from the gastric remedies. She has, as you are aware, taken also of bromide of potassium; and of late she has been, as inpatient, under more favorable circumstances than she probably was at home.

In connection with the foregoing interesting essay, we print from the August number of the same periodical an illustrative case:

ST. GEORGE'S HOSPITAL.—A CASE OF ANOMALOUS NERVOUS DISORDER.

(UNDER THE CARE OF DR. BARCLAY.)

The following is a brief account of the patient to whose case reference has been made. Dr. Reginald Thompson, medical registrar, has courteously obliged us with the particulars.

Emily S——, aged seven and a half years, was admitted January 27th, 1867. Ever since her birth she has been fretful, and for a very long time now has been subject to transient fits and great nervous irritability. The child never talked at all until seven years of age. She often complained of her head, and put her hand to the top of her head as if in pain there. Father and mother reported healthy; four other children all well. This child used frequently to go into uncontrollable fits of laughter, and would laugh till she fell. It was said that she was worse in cold weather.

On admission the child appeared to be in perfect health, and was well made; the head not large, the skull natural, rather of a simple countenance, but could not be said to have any vacant look. When touched on the shoulder or elsewhere sharply the child dropped immediately, helpless and quite unconscious, with a slight cry, coming to herself in about three seconds.

She was treated with gradually increasing doses of bromide of potassium (up to thirty grains) three times a day, and at first improved; but after two months confinement in the hospital seemed to affect her health, and the fits became more frequent. She was sent out in April.

CASE OF COMPOUND FRACTURE OF THE SKULL, WITH RECOVERY.

Abscess of the Brain.—Hernia Cerebri.—Paralysis.—Remarkable Discharge of Serum.—Loss of Speech.

BY EDWIN HUTCHINSON, M. D., UTICA, N. Y.

On the afternoon of February 26th, 1868, a son of Christian Galli, of Utica, aged three years and eight months, fell down stairs, striking his head with great force against the corner of a stove. He was not made insensible by the blow, but screamed loudly as they carried him into the house. I saw him about an hour after the accident, and found him sitting on his mother's knee, intelligent, and making no complaint of pain; his skin cool, pulse moderate, and little to indicate that he had sustained a serious injury. On removing the cloth which covered his forehead, to my surprise, a mass of brain matter was noticed filling the wound in the scalp. The skull was fractured at the anterior portion of the right parietal bone.

In order to make a careful examination, I placed him under the influence of chloroform, and made a V incision down to the bone. The opening in the skull was a little more than one inch in diameter. A piece of bone about as large as a copper cent, had been driven in like a hinge, so that it remained at right angles to the surface. The lower edge could be plainly felt with the finger, and it was found that it had been forced down through all the coverings into the substance of the brain itself. The inner table was not much splintered, and but few loose pieces were removed. A small place was now cut away from the anterior edge of the opening to

make room for the elevator; this instrument was used, and the depressed bone restored as nearly as possible to its former position. An ounce of brain-substance was lost during the operation; very little blood escaped. The edges of the wound were brought together with adhesive straps, water dressing applied, and the child put to bed. He was quite bright after the effects of the anæsthetic had passed off.

The following is a brief summary of the subsequent history of the case:

February 27th, child doing well; wound kept constantly wet with solution of carbolic acid, one grain to the ounce. 28th, head cool; pulse moderate; appetite good; eyes natural, pupils not contracted; bowels have moved; wound nearly united by first intention. 29th, pulse 120. March 1st, pulse 120; slept well last night; everything favorable. 2d, pulse 128. 3d, pulse 132; ordered cathartic. 4th, pulse 140; restless. 5th, pulse 140; head hot; cold water applied; still quite restless; healthy pus discharging from wound. 6th, 7.30 A. M., pulse 132; he passed a restless night. The membranes forced themselves through the fissure in the skull, and stopped the flow of pus; they were cut away with scissors, and then a probe introduced about an inch; at first some serum escaped, and then over a drachm of healthy pus, together with some disorganised brain matter; there was some bleeding. Child slept while probe was used; pulse the same after probing; order wine, milk and beef tea freely. 5 P. M., pulse 128. 7th, 9.30 A. M., pulse 128; patient bright, pupils natural. The rapid pulse, and general irritation caused by the retention of matters within the skull, ceased as soon as the passage was opened for their discharge. 3 P. M., pulse 132 while awake, 116 sleeping; during the day a teaspoonful of pus escaped suddenly. 8th, 9 A. M., pulse 110. 9th, pulse 120; a tablespoonful

of pus gushed out, with a little blood. There is evidently quite an abscess in the brain with defined walls; the membranes protruding into the opening left in the skull, block it up so that the pus cannot be discharged; by probing every day deeply, exit has been given, and the brain relieved from pressure. There is now considerable cerebral disturbance; his eyeballs twitch rapidly and regularly from side to side. Order cathartic. 5.30 P. M., pulse 124; pus now discharges freely; bowels still constipated; repeat cathartic; eyes twitching as before; cerebral irritation continues. 10th, 8.30 A. M., pulse 114; eyes do not move so rapidly; bowels still constipated; repeat cathartic. 5 P. M., pulse 112 while sleeping; very little discharge from wound; eyes twitching regularly; bowels moved. Left arm paralyzed, and colder than right one; order bromide of potassium, two grains every two hours. 11th, pulse 112 awake, 100 asleep; very irregular. Passed a probe two inches, pressed aside the membranes, and allowed the escape of considerable dark colored pus. Skin cool; tongue moist; bowels have moved freely; child now screams constantly. 8 P. M., pulse 104; eyes move slightly; some discharge from wound; arm still paralyzed. 12th, 8.30 A. M., pulse 98 and regular; he moves his left arm, which is somewhat warmer. His eyeballs are now quiet and natural; the twitching has continued four days; the wound discharges more freely; continue bromide of potassium. 5 P. M., pulse 90 while sleeping; considerable pus flowed during the day; left arm again completely paralyzed. 13th, pulse 112 while awake; has a brighter expression, and better appetite; arm still paralyzed; bowels constipated; ordered castor oil. 14th, pulse 112; seems much better; can move his left arm; the paralysis has continued nearly five days; appetite improving; bowels have moved. 15th, pulse 116; has greater use of arm; 16th, pulse 112; is brighter.

18th, pulse 96 while sleeping, 116 while awake. The membranes and disorganized brain matter have now protruded themselves through the opening, even forcing the fragment downward and backward; thus far I have kept the mass constantly cut away with scissors. It grows rapidly, pulsates regularly, and is a real fungus or *hernia cerebri*. 19th, pulse 120; sleeps well; the hernia is about the size of a filbert, and is cut away. 20th, pulse 112. 21st, pulse 106; he worries considerably, and is constipated; ordered castor oil. 22d, pulse 104; hernia is again cut away; appetite excellent; bowels regular; sleeps well. The power of speech has been seriously affected; now says a few words; enjoys his playthings and is intelligent. 23d, pulse 104. After cutting off tumor, passed a probe deeply into cranium, and considerable serum escaped; this came undoubtedly from effusion following sub-acute inflammation of the serous lining of the ventricles. 25th, hernia protrudes slightly. 29th, pulse 112. Tumor pulsating regularly, and is as large as a pigeon's egg; is sliced off, but not to the bone; hermorrhage considerable; controlled with persulphate of iron. 30th, tumor three quarters the size of a hen's egg; child resisting the operation, was put under the influence of chloroform, and the mass cut away nearly to the bone; hermorrhage very severe, and controlled as before; pulse 120 after operation; the child perfectly intelligent. 31st, pulse 128; hernia grown rapidly since yesterday; applied solid nitrate of silver; general appearance good.

April 1st, pulse 120; tumor increasing; again applied the caustic. 3d, pulse 132 and feeble; tumor larger than a hen's egg, and composed of disorganized brain matter, coagulated blood and lymph; applied pressure with a bandage. 4th, pulse 140; remove bandage. He tore off a piece of the fungus as large as a walnut during his

sleep, and it bled freely; the father stopped hemorrhage with some persulphate of iron I had left in the house. 5th, pulse 148; in the afternoon nearly two ounces of healthy pus escaped suddenly from cranium. Since April 1st, his pulse has been steadily increasing, and he has shown signs of considerable irritation. 6th, pulse down to 128; patient much better.

7th, pulse 134; pus does not flow; talks and appears bright. 9th, pulse 128; tumor larger. 11th, hernia about the size of a hen's egg; tied it off with a silk ligature; bleeding stopped with persulphate of iron and snow. 12th, pulse 140; tumor grows almost as fast as it is cut away. 13th, pulse 120 while sleeping; restless when awake. 15th, pulse 144; tumor increasing; he is constantly fretful; bowels constipated; to have castor oil. In the evening a discharge of serum commenced from the wound, and continued until the 20th. The cloths on his head were constantly saturated with the fluid, although frequently renewed. His pulse became less rapid, and he appeared decidedly better as soon as the flow of serum began; the discharge was profuse, dropping rapidly from the wound when the head was inclined. 21st, pulse 134; the flow of serum ceased; about thirty ounces of liquid have been discharged during the last five days; he has a good appetite, but is fretful.

24th, pulse 140. Hernia has not grown since the 15th, when the serum commenced to discharge, proving conclusively, that this singular pathological formation, is not merely a mass of exuberant granulations, but that it is brain-matter more or less disorganized, with clotted blood, forced out by effusion within. The tumor is now firm, has a pink surface, and does not pulsate. He has been deaf for the past ten days; continue the bromide of potassium. 26th, pulse 128; tumor unchanged; patient

now able to walk a short distance when assisted, but reels when unsupported. May 4th, pulse 130; patient improving; tumor smaller. 8th, is strong, and walks easily though unsteadily. 9th. The discharge having ceased, pressure was now applied over the hernia, a hemispherical cork pad being used, with a band of rubber webbing. 11th, the tumor is nearly reduced; he still walks unsteadily. 14th, the cork pad was made more conical, so as to press the hernia into the skull, without preventing the scalp from growing over the wound; the rubber band answers well. 26th, the hernia is pressed in as far as possible, and the scalp is healing over the tumor; the boy now talks, hears, plays, and acts as well as he did before the injury, and one would scarcely credit that he had received such a wound. 30th, scalp heals slowly. June 5th, his parents took him to Montgomery County, and a few days afterwards he became perfectly deaf; he passed under the care of Dr. Morgan Synder, of Fort Plain, who wrote me June 19th, that the boy was entirely well excepting the deafness; the scalp had grown over the wound, and although the scar was impressible, and pulsated slightly, yet it was firm. His father has just informed me that the boy is still perfectly deaf, but otherwise, as healthy as could be desired.

There are many points of interest in the case just reported. In the first place, we notice that the child was not stunned by the fall, although the blow was sufficient to fracture his skull; he did not even suffer from the shock. It was providential that he escaped the dangerous symptoms which usually follow such injuries, and often herald an unfortunate result. A few days after the accident, the pulse became more frequent, the skin somewhat warmer, and the head hot. Everything indicated the formation of an abscess, and soon healthy pus made its appearance. So long as the wound discharged freely, the

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symptoms were favorable, but the protrusion of the membranes into the opening in the skull, so often alluded to, made it necessary to introduce the probe. If the discharge was interrupted, the frequent pulse and restlessness would show at once the danger; after the probe was used, the relief was marked and immediate. The abscess had regularly defined walls, and burrowed downwards and backwards. This is proved by the fact that there were no signs of diffused abscess, and at length, the discharge of serum made it evident that there was some inflammation of the ventricular lining.

The paralysis was unquestionably due to pressure from effusion. As has just been intimated, there was subacute inflammation of the serous lining of the right ventricle, which being distended with fluid, pressing on the base of the brain, the result was paralysis of the opposite side.

The hernia was at first formed by the diseased arachnoid and pia mater. Afterwards, when the flow of pus had ceased, and the abscess was empty, the granulations from the brain made up considerable of its bulk. Finally, the capillaries which supplied it gave way, and blood clots and brain matter were mingled together. When the tumor was small it was quite firm, but afterwards it became soft, and could be easily torn. It will be noticed that at three separate times the growth increased rapidly, becoming as large as a hen's egg in twenty-four hours. This was not the result of the granulations, but was invariably caused by the accumulation of either pus or serous effusion within. This was the case on the 25th of March, and on the 5th and 15th of April. The tumor ceased growing the moment the flow of serum began, which proves conclusively that it was being forced out by the effusion.

It was good surgery, though not often recommended,

not to attempt to reduce the mass by pressure, so long as there were signs of inflammatory action within. When these signs disappeared, the rubber band was applied with success. It was often necessary to cut the tumor away to give a free place for discharge, and also, when the fungus was soft, to prevent the restless patient from tearing off a large portion, and so suffer from hemorrhage. The scissors was the best means used for this purpose; caustic and ligature were unsatisfactory.

A very remarkable feature, was the five days flow of clear serum. The quantity could not be accurately determined, but was very great. He passed but little urine during this period. The serum unquestionably came from the ventricles. Had pressure been used at this time the boy's life would have been sacrificed.

This adds another to the list of cases of considerable loss of brain substance, without the loss of intellection. The original injury, with subsequent abscess and hernia, made a very great deficiency in the original size of the anterior portion of the right hemisphere. To-day no evil results are seen from this cause. He is perfectly deaf, probably from some injury to the auditory nerve by pressure, or by its being implicated in the changes brought on by inflammation. As the deafness is total, it is likely that the lesion exists near the origin of this nerve, on the floor of the fourth ventricle.

The partial loss of speech for a time, would seem to indicate some change in the left hemisphere; the accumulation of fluid in the left lateral ventricle from the right through the foramen of Munro, bringing on the pressure which caused the aphasia. Still, is this not going out of the way to support a theory? A number of cases have been reported of this condition, where the pathological change has been upon the right side altogether, as found after death. As the wound re-

ceived by this child was upon the right side, it does not coincide with the theory of M. Broca and his supporters.

For two months the boy could not walk alone, although he was quite strong and had gained flesh rapidly. He could easily stand up if assisted, but could not take a step forward, or balance himself. This dizziness was neither caused by great debility or anemia. It was too marked from the first, and lasted too long. In fact he did not recover from it for nearly four months. The reason for this is to found in the unusual disturbance in the secretion of the cerebro-spinal fluid. It will be remembered that there is a communication between the sac of the spinal arachnoid and the ventricles. When from any cause the relation of the liquid contents of the brain or cord is made greater or less than natural, vertigo is the result. Here we find an unusual accumulation of serum in the ventricles, giving rise to various alarming symptoms, and even forcing a passage for its external discharge. The serous surfaces which gave up this secretion could not resume their healthy state rapidly, and no doubt kept the cerebral cavities distended sufficiently to occasion the vertigo.

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Part IV.—Psychological News.

Space will not allow us more than a mere glance at the interesting contents of these numbers of the leading foreign Psychological Journal. The second paper in the number for April, 1867, by Dr. T. B. Belgrave, On Asylums for the Insane in St. Petersburg, was republished a short time since in this journal, but we here select the following in relation to clinical instruction, and the preliminary education and qualifications for a resident medical officer:

"Instruction is afforded on a definite plan. Each physician delivers in a leisurely manner, short clinical remarks to his small class, in illustration of the lectures previously delivered by the professor. A knowledge of diagnosis, prognosis, and the details of treatment is imparted at the same time. Each student has one or two typical cases alloted to him, which he is required to observe and study minutely, taking extensive notes of their progress, recording all evident changes in their bodily and mental condition, the results of a quantitative and qualitative analysis of the urine, &c.

After having attended the University Course of Lectures on Psychology, and passed through the clinical ordeal, including the six months' residence *as an attendant*, a student is considered eligible for the position of resident medical officer in a lunatic hospital. The history of the Asylum, though short, has satisfactorily proved the compatibility of clinical instruction with successful domestic management and medical treatment. It has been observed that the majority of the public patients soon become accustomed to the few students who accompany the medical officers on their professional visits, when the young men comport themselves with ordinary discretion; indeed many of the unhappy creatures appear to derive benefit from the intercourse."

We regard this an admirable expedient for imparting the preliminary clinical instruction so necessary to physicians that purpose to devote themselves to the medical care of the insane, and would be happy to see something of the kind adopted in this country.

Dr. Gray, in his annual address as President of the Medical Society of the State of New York, has called attention to this subject, urging strongly its expediency, indeed its absolute necessity as a part of medical education. We are glad to see by a note in the *Journal of Mental Science*, for April, 1868, that a Psychological Clinique has been established at Cambridge, by Dr. Bacon, of the Fulbourn Asylum.

The numbers for July, 1867, and January, 1868, contain strictures, by Dr. S. W. D. Williams, on a paper by Dr. Edgar Sheppard, formerly noticed in this journal,

and the number for October, 1867, has a rejoinder, by Dr. Sheppard.

We consider the papers of both gentlemen admirably illustrative of the practical working of the *professed* non-restraint system of England when pushed to extremes, and in this their chief value consists. It affords us great pleasure to find that the views we have long entertained respecting this non-restraint in England, are thus virtually indorsed by both these gentlemen; but as we propose to say something on the subject in the next number of this journal, we refrain from further remarks in this place.

The JOURNAL for July, 1868, thus remarks on the paper of Dr. George Cook, in reference to provision for the chronic insane poor of the State of New York:

"The paper with this title, which appears in the July number of the JOURNAL, will attract attention as the first labored effort in defence of separate establishments in America for the chronic insane, and is, moreover, of interest just at present to English psychologists, as giving an American view of a question which has lately been largely discussed in England, viz.: the desirability of building cheap supplementary asylums for the chronic insane and imbecile.

The main argument of the writer is founded upon an assertion, the truth of which he thinks he finds in the history of American legislation; that New York is unable, or unwilling, or both, to build sufficient hospitals for her insane; and, therefore, some other and cheaper method must be devised for the care of this unfortunate class of her children. He does not contend that the system of separate asylums for the chronic insane is the best in itself, but that it is best only under all the circumstances. He acknowledges that, were it possible to secure enough hospitals on the existing plan for all the insane of the State, he would not advocate a change; but this he believes to be impracticable, because for fifteen years, efforts have been made, without success, to secure the passage of a bill through the Legislature of the State of New York, for one or more State hospitals of this character; therefore he asks, is it not wiser to take it (the scheme of providing for the chronic insane in separate institutions) rather than adhere to the unattainable, and get nothing?"

Dr. Cook's views do not appear, however, to be endorsed by either his confreres, or by the editors of the AMERICAN JOURNAL OF INSANITY. It seems to be the general opinion in America, that the erection of incurable and cheaper hospitals for the chronic insane, apart from the curative establishments, is pernicious, and would be anything but a wise economy. It is true, they argue, that the history of legislation in the State of New York, during the fifteen years ending with 1865, supplies but one example of well planned, well directed and strenuous effort in behalf of the insane of the Commonwealth, viz.: in 1857 when the neglected condition of the poor insane, and the necessity of further State provision, were brought to the attention of the Legislature by the forcible report of the Select Committee on Charitable Institutions, Poor Houses, &c. The report was, however, accompanied by a bill providing for the immediate erection of two State Hospitals. This bill passed the Senate. "In the Assembly it passed a third reading, when its further progress was arrested by the premature adjournment of the Legislature."

The subject was not again called up until two years ago, when, almost in the midst of a civil war of unprecedented magnitude, and with an accumulated debt of vast proportions, the Legislature of the State responded at once, without discussion or dissentient voice, to Dr. Willard's appeal, and the Willard Asylum was created. And in further evidence that the State is *potens et volens*, and that there is no disposition to evade or ignore the just claims of the insane, the Legislature last winter, authorized the Governor to appoint a Board of Commissioners to select and contract for the site of a third State Hospital, to be located on or near the Hudson river, below the city of Albany.

The proposition to erect special asylums for the chronic insane, met similar disapprobation and defeat in Kentucky, Ohio and Connecticut, the first two making liberal grants to enlarge existing hospitals, in Ohio to the extent of doubling the capacity of two of her State Hospitals; while Connecticut has just passed a law authorizing the construction of a General State Hospital for the insane, at the cost of $200,000.

In this connection, we may call attention to recent legislation in New Jersey, Iowa, Indiana, West Virginia, Nova Scotia and Canada West, where liberal appropriations have been made to enlarge or complete existing hospitals, and to Minnesota and Kansas, at present engaged in the establishment of State Hospitals for the insane.

In California, the Assembly Committee on State Hospitals, to

which was referred the Assembly bill creating a State Hospital for curables, at some point to be determined by a board of directors, and proposing to make the asylum at Stockton an institution for incurables, reported the bill back with a recommendation that the subject be indefinitely postponed.

SUMMARY.

Obituary.—It is our painful duty to announce the death of Dr. Samuel E. Shantz, Superintendent of the Minnesota Hospital for the Insane, which took place at St. Peter, on the 22d of August last.

Dr. Shantz was born in Canada, educated for his profession partly at the University of Toronto, and partly at Cambridge, Mass. He served for a period as surgeon in our army during the civil war, and was afterwards connected with the New York State Lunatic Asylum at Utica, as Assistant Physician. Here he won the warm regard of his fellow officers for his uniform amiability and gentlemanliness of manner, and his evenly-balanced character and attainments. He left here to become the Superintendent of the Minnesota State Hospital for the Insane. For a short time previous to his professional engagement in this country, he had the great advantage of professional service under the eminent Dr. Joseph Workman, of Toronto. We had hoped to receive from Canada in time for this number a more detailed sketch of the short but honorable career of the late Dr. Shantz, and trust it may yet be furnished for our next.

The following minute and resolutions of the Board of Trustees of the Minnesota Hospital have been forwarded to us:

Died, at St. Peter, Minnesota, August 22d, 1868, of typhoid fever, Dr. Samuel E. Shantz, in the 33d year of his age. He was chosen Superintendent of the Minnesota Hospital for Insane in September, 1866, and entered upon his duties as such the ensuing November, when the institution was first opened. He had been connected with similar institutions about six years previously, and was called to this post from the State Lunatic Asylum, Utica, N. Y. On the 21st of May last, he was married to Miss Louisa G. Graham, of Utica, N. Y. At a meeting of the Board of Trustees of the Hospital, September 3d, 1868, the following resolutions were unanimously adopted:

Whereas, in the orderings of that Divine Providence, whose ways we may not fathom, but whose appointment we are to recognize as infinitely wise though often very dark to us; it has pleased Him in whose keeping are the issues of life, to remove by death our esteemed and efficient Superintendent, the late Dr. Samuel E. Shantz. In his death we recognize a great public loss. In the prime of his life, with his energies and hopes identified with this Institution from its beginning, and laboring with zeal in that specialty he had chosen for his life profession, he bid fair to rank high among those who have distinguished themselves in directing these great public charities. Called away just as the future looked so bright, with attachments and hopes making that future so promising, there is something inexpressibly sad in his removal. The best and most watchful of attentions, all that friendship, skill and care could do, were rendered, but in vain. It is ours to bow in reverence and bring home to our hearts the solemn lessons of this Providence. Therefore,

Resolved, That we the Trustees of the "Minnesota Hospital for the Insane," bear record of our high appreciation of the late Dr. Samuel E. Shantz, as Superintendent of this Institution, and the fidelity with which he discharged his official duties.

Resolved, That we tender to his father our sincere condolence in the death of a son in whom doubtless many hopes were centered, and especially to his young and afflicted companion, we offer our deepest sympathies in this her sad and sudden bereavement, with our earnest prayer that the God in whom her husband trusted will be her support in the time of her bitter sorrow and desolation.

Resolved, That a copy of these resolutions be signed by the Officers of the Board, and forwarded to Mrs. L. G. Shantz—to Samuel Shantz his father—to "THE JOURNAL OF INSANITY," the St. Paul and our local papers.

C. T. BROWN,
President Board Trustees.

A. H. KERR, *Secretary.*

It may not be out of place, as a proper accompaniment to the above resolutions, to give the following obituary notice which appeared in *the Gospel Messenger* of September 10th, published in this city:

At St. Peter, Minn., August 22d, Samuel E. Shantz, M. D., son-in-law of E. A. Graham, Esq., of Utica.

Dr. Shantz was called two years since to be Superintendent of the Minnesota Hospital for the Insane, then being established at St. Peter. He was discharging his difficult and responsible office with great success, and his death is announced by the secular papers of that State in terms of profound regret. The writer of this wishes to bear his testimony to his private virtues. Of a cultivated mind, a kind heart, and gentle manners, he attracted the regard of all he met. To these qualities he added a religious spirit and a warm attachment to the Church in whose faith and communion he died.

E. L.

[Dr. Shantz was born in Waterloo township, Canada, received his education at the University of Toronto, and at Harvard, where he finished his medical course; was for several years a surgeon of our army in Virginia, and afterwards second assistant physician in the New York State Lunatic Asylum, at Utica, whence he was called in 1866 to become Superintendent of the Minnesota State Lunatic Asylum, at St. Peter. Dr. Shantz was baptized in the chapel of Grace Church, in this city, October 12th, 1866, by the Rev. Dr. Gibson, chaplain of the Lunatic Asylum, and confirmed by Bishop Coxe at St. Paul's Cathedral, Buffalo, in the following week, on his way to Minnesota.

He had married an accomplished and most estimable lady of this city only about three months previous to his death. His life was gentle and *pure*, and his end was peace. It is a delightful satisfaction to us that his sick-bed was attended by a dear Christian brother who was once our own spiritual preceptor, the Rev. Edward Livermore, of St. Peter.—Ed. Mess.]

Epileptiform Convulsions Following a Blow on the Head, &c.—C. B., aged 14, a carpenter's apprentice, living at Kingston-on-Thames, was admitted into Guy's Hospital on January 21, 1868. The patient has always been quite well until his present illness. About nine weeks ago, at 4 P. M., a heavy wooden trestle fell from a height of seven feet, and its blunt edge struck him on the head,

close to the median line, about two inches in front of the superior angle of the occiput, inflicting no wound, but occasioning slight subcutaneous swelling. He was rendered insensible for about three minutes, but he did not vomit. The same evening he could walk, and followed his occupation for three days subsequently. During that time, however, he was gradually losing his appetite. On the fourth day afterwards he had headache and remained in bed (except at meal times when he sat up.) On the seventh day he first had twitchings of the muscles of his hands superadded to the other symptoms, all of which still continued. A medical man being called in, stated that he thought the symptoms had nothing to do with the injury. On the eighth, ninth, and tenth days the headache continued, but there were no twitchings. On the eleventh day there was spasmodic contraction of the muscles both of the hands and feet; the limbs would become rigid, with the fingers extended, and he was jerked from his chair whilst sitting up at the side of his bed. These attacks lasted each from two or three to fifteen minutes; he was conscious during their continuance. Thus he remained during the twelfth and thirteenth days. On the twelfth day ice was applied to his head for two hours at a time, and then off for an hour, and this local treatment was persevered in for a week. Mercury was also administered internally for three days, sometimes every hour and sometimes every three hours, but not to salivation. On the fourteenth day, to the other symptoms was superadded temporary loss of consciousness with each muscular twitching; on the cessation of the muscular spasm he would become at once quite sensible.

All these symptoms remained until December 22 (the fifth week,) when they altogether ceased. During their continuance he was not asked to stand up, but he thinks he could have done so had the attempt been made.

On December 22, therefore, he thought himself quite well, except a little muscular debility, but on Christmas day he was able to walk in the garden attached to his father's house. During the latter part of December he was very careful in his diet, taking no beer or wine whatever, and walking a little each day in the garden.

On January 1, 1868, he dressed himself in the morning, but very shortly afterwards, without any preliminary headache or other uneasiness, twitching of his muscles again came on, and he went to bed. Before the evening of the same day he became at times delirious and furious, and was violently and generally convulsed, so that it required two men to hold him in bed during the continuance of a "fit." Between the "fits" he was quite conscious.

2d.—There supervened persistent headache (referred to the vertex,) and he continued being every few minutes convulsed, but not so severe as yesterday. In this condition he remained until his admission into Guy's Hospital. He was during this time able to sleep four or five hours at night, when the convulsions would cease.

20th.—He bit his tongue for the first time in a "fit." During the days just preceding admission he had, on four or five occasions during the "fits," passed his motions and urine involuntarily into the bed.

On admission, January 21, the boy was carried into the surgery, where he had a very severe epileptiform kind of fit, affecting nearly all the muscles, but more especially those of the extremities and the back; this lasted about fifteen minutes, when he was carried up into the ward by his father. He had a vacant stare, and as the father asserted he could not stand, no attempt was made to place the patient on his feet. He could grasp equally with either hand, and his grasp was a moderately firm one. His head was cool; the pupils were equal, and acted normally to the stimulus of light. When spoken to and asked to point out where there was pain and where he had been struck, he moved one of his hands (sometimes one and sometimes the other) sluggishly to the vertex, and with his fingers traced a line some three or four inches long, commencing half an inch to the left of the superior angle of the occiput, and thence running forwards across the median line to a point about an inch to the right of the anterior extremity of the sagittal suture. When the surgeon's fingers were applied to this same part, nothing abnormal was noticeable; the surface of the bone seemed quite even. There was no local tenderness, but upon pressing with the finger on the right parietal eminence, some peculiar nervous phenomena were developed. The boy became, as it were, slowly tetanized; his arms were thrust out straight, and his fingers became fully extended on the palms. His legs were also irregularly affected, being mostly extended—occasionally, however, more or less flexed. The muscles of his face participated in these spasmodic contractions. Gradually all this muscular action would cease; the time occupied by the phenomena from beginning to end lasted from forty to ninety seconds. During a quarter of an hour the same cycle of phenomena was repeated eight or ten times, and always when the same spot on the right parietal bone was touched. But the "fits" also came on twice or three times without the scalp being touched at all. During the "fits" the boy seemed semi-conscious, but between them there was no deafness; he could pro-

trude his tongue naturally; and the pulse and respiration were unaffected, except that they were both a little quickened.

He remained under observation for about twenty minutes. Mr. Poland decided to trephine the boy at the spot on the parietal bone whence the nervous symptoms seemed to start, and where the supposed seat of injury was situated. Accordingly, the scalp having been shaved, chloroform was administered, and Mr. Poland operated. He made a cranial incision and reflected back the flaps, and peeled off the pericranium, finding all the tissues external to the bone quite healthy. The largest-sized trephine was then applied at a spot on the right parietal bone one inch to the right of the sagittal suture, and one inch and a half in front of the superior angle of the occipital bone. A circular piece of bone was then removed. It was quite healthy, although a little denser than usual, requiring many turns of the trephine to cut through the tables; and there was a little adhesion to the dura mater, but not more so than is usual in skulls at the patient's age. The exposed dura mater, which pulsated with each beat of the heart, was to all appearance healthy, and did not bulge in the least into the trephine hole. The flaps of the scalp were then replaced, fixed in position with strapping and sutures, and the boy sent back to bed. An ice bag was applied over the seat of operation.

22d.—Slept some hours during the night. Pulse 118 and full; respiration 26. He has had no fit since the operation. Headache quite ceased; skin of natural temperature; pupils active and equal; is a little weak, but can move his legs and arms. He has not vomited. He was placed upon milk diet.

24th.—Absence of all symptoms denoting brain disturbance; countenance cheerful and bright; pulse 110; respiration 26.

27th.—Ever since the operation, the patient has not had a trace of the cerebral symptoms which previously existed. Pulse 75; respiration 23; appetite good; tongue natural; and takes bread in his milk.

February 3.—For the first time, to-day he was dressed and set up in a chair, and during this time the pulse was about 90 in the minute.

4th.—Just after having dressed and got up, and when the patient's face was apparently a little flushed, the pulse, whilst he was in the erect position, was 114.

5th.—Pulse 95. He was walking about the ward, and seemed quite well. Wound suppurating at its centre, but there had never been any bagging of pus beneath the flaps. Primary adhesion had nearly been completed.

14th.—The wound granulating, and but little pus discharged. The pulsations of the brain are distinctly visible. The boy seems to be as well as possible in his general health. In the erect position, the pulse is 75, and respiration 19.

26th.—The boy can run about without feeling any ill effects, but cannot carry weights, or even a chair, for any distance without pain shooting up to his head. Stooping very low also causes pain.

March 10.—He left the Hospital perfectly well.

He has been heard of so recently as August. He is well, and has never had any return of his complaint, and his intellect and movements are good and natural.

Remarks.—We have little to say on this peculiar and anomalous case. Here was a boy in perfect health, never having had the slightest approach to a fit or cerebral disturbance before the accident. The corner of a heavy trestle falls on his head at a certain spot; from that time forth he has fits of an epileptic character. The spot struck seemed to be the source of all the effects which afterwards ensued. That spot and the bone corresponding to it were incised and removed by the trephine. All symptoms immediately subsided and never reappeared, the boy becoming perfectly free from all cerebral symptoms. There was no depressed bone, no fracture, no appreciable disease in the scalp, bone, or dura mater. Many conjectures and theories have been suggested. We offer this case to the Profession for their judgment in the matter. Would this boy have got well had the trephine not been used? Was the operation justifiable? All we can plead in defense of the practice is the ambiguous phrase—"The end justifies the means."—Alfred Poland, F. R. C. S., *in Medical Times and Gazette.*

Case of Epilepsy connected with Vesical Calculus, cured by Lithotomy.—Few diseases have a greater variety of exciting causes than epilepsy. It is proximately dependent on the excitability of a portion of the central nervous system, but it generally requires at the same time the operation of an adequate irritant, either centric or peripheral. Of these excitants, diseases of the genito-urinary organs are not the least important, and the case I am about to relate is an instance, sufficiently rare, of epilepsy resulting from stone in the bladder.

John Greig, a little boy, five years old, was sent to me by Sir James Simpson in October, 1865. He had all his life suffered more or less from dribbling of urine, pain in the bladder, and other symptoms of stone. Between the ages of one and three years these

were especially severe, and at that time he also became subject to well-marked epileptic fits. Gradually during the next two years of his life the urinary irritation diminished; intervals of several weeks intervened between the fits; and the child, from being thin, pale, and unhealthy, grew stout, ruddy, and intelligent. The last few months, however, had been marked by a grave recurrence of both disorders, and the parents were anxious to give him a chance of permanent relief.

At the first examination the urine was muddy, full of epithelial debris, and urates; but by the use of bicarbonate of potash and demulcents it became quickly more healthy, and as a stone could easily be struck by the sound, I performed, on the 10th of November, the ordinary lateral lithotomy with the help of Drs. David Simpson, Black, and Inglis. The only peculiarity of the operation was that I found the stone lying on a ledge anteriorly, though the child was in the recumbent position. In this there could be no mistake, because, being at first unable to touch it with the forceps, I introduced my finger, dislodged, and at once removed it.

That night the patient slept pretty well, but at five o'clock next afternoon a series of fits came on. Each lasted only two or three seconds, but for several hours they occurred with great frequency. Similar seizures took place on the 12th and 13th, but were relieved by the application of mustard to the neck, and the administration of four drops of morph. sol. in a dessertspoonful of camphor mixture.

On the 14th, I began the use of bromide of potassium, and the fits at once ceased. On the 25th, the urine began to come by the urethra, and everything went on favorably till the 1st of December, when the wound took on an unhealthy action, orchitis attacked the left testicle and the epilepsy returned with its former severity. The permanganate of potash and warm fomentations were applied, and matters were speedily brought again into a satisfactory condition. In another fortnight the perineal wound had completely closed, the child was running about, and the only remaining inconvenience was slight incontinence of urine. A few days ago, or two years and a half after the operation, I made some inquiries about the boy, and found that the urinary organs were quite normal, that he had not had a fit since December 1865, and that, in short, he was perfectly robust and healthy.

In this case there can be no doubt that the exciting cause of epilepsy was the irritation produced by the calculus; and it is interesting to note the increase and diminution of the fits as the

condition, both before and after the operation, improved or retrograded. The bromide seemed to have at first a calmative effect, but it was evidently powerless when the peripheral irritation became intense. I attribute none of the ultimate benefit either to it or the sulphate of zinc, which was afterwards given for a week or two. The removal of the stone was the means of cure, and there is good reason to hope that the operation has permanently removed the two very painful diseases from which the little patient suffered. —Dr. JOHN DUNCAN, *in Edin. Med. Journal.*

The relation between head and heart in the physician, and the importance and influence of this relation, is thus beautifully and truthfully expressed by Prof. Sir J. Y. Simpson, in his address to the Edinburgh medical graduates, August 1st, 1868:

THINKING, DOING, FEELING.—In some professions and occupations, man's principal duty is to think; in others, his principal duty is to do. The practice of physic and surgery calls for the constant and resolute exercise of both qualities—of thought alike and of action. It is, however, the part of the medical practitioner, not only to be ready to think and act for the relief and cure of his patients, but also to feel for them in their sorrow and suffering. An unsympathizing physician is a physician bereft of one of the most potent agencies of treatment and cure. He knows not, and practices not, the whole extent of his art, when he recklessly neglects and eschews the marvellous influence of mind over body. For sometimes kindly and cheering words or looks from the physician are to the patient of more real worth than all his physic.* They secure the sick man's confidence and gratitude; they rouse his hopes and courage; and they even intensify the good effects of the physician's more direct therapeutic measures. Yes—let all of you cultivate to the uttermost the steady manliness of hand and head which our profession so urgently demands; but do not despise that gentle womanliness of heart which the sick, in their depression and pain, so often look for, and long for, and profit by. Be to every sick man his beloved, as well as his trusted physician.—*Edin. Med. Journal, September*, 1868.

* Sunt verba et voces, quibus hunc lenire dolorem
Possis, et magnam morbi deponere partem.